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Original Lectures.

THE THERAPEUTICAL ACTION OF COLD.

A LECTURE BY

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GENTLEMEN:—Remedial agents are of two kinds: First, drugs; and second, other therapeutic measures, such as temperature, electricity, etc. For the sake of convenience, we will here consider those remedial agents which are not drugs, and first, among them, we will study one of the physical forces or imponderables—cold.

Physically, cold is the absence of heat. Therapeutically, it is a positive agent, and has five actions:

1. Tonic.
2. Styptic.
3. Antiphlogistic.
4. Anæsthetic.
5. Antipyretic.

In the first three, cold acts only upon the vaso-motor system as a pure irritant neurotic. In the last two it acts simply on physical principles.

COLD AS A TONIC.

We have said that cold, when it acts as a tonic, is an irritant. Every irritant produces a shock and causes an expenditure of the energy of the part irritated. The energy of the part irritated, therefore, becomes depressed; but this depression differs from that produced by a simple sedative, in that it is followed—provided the shock is not so great as to cause exhaustion—by a *reaction* to or beyond the condition in which the part was prior to the irritation. Thus, cold, as an irritant, affects the vaso-motor system and produces a shock which is followed by a reaction. In other words, this system is exercised, and all moderate exercise tends to strengthen the organ called into action, and permanently to improve its nutrition. Cold, then, is a vascular tonic, and may be used generally or locally. When the circulation is feeble, and there is loss of muscular power, the general use of cold will arouse the heart, restore arterial tone, and thereby improve the nutrition of the whole body. For this purpose either the dip-, shower-, or sponge-bath may be used, according to the strength of the patient, taking care never to cause exhaustion by its too frequent or too protracted use. A thorough reaction, as indicated by a glow of the skin, should always follow the bath, and never a sensation of lassitude or fatigue. When the irritant effect produced by the cold water alone is not sufficient, salt or some mild rubefacient may be added. If the patient is too feeble to bear even the sponge-bath, simple exposure of the surface of the body to cold air will often prove beneficial. In all cases reaction may be assisted by friction with a rough towel.

A cold douche to the nape of the neck is indicated in the following conditions:

1. When, after sunstroke, the arteries of the head remain dilated, and there is headache and dizziness on exertion or exposure to the sun.
2. In all cases in which headache is confined to one side, and is attended by dilatation of one temporal artery and suffusion of one eye.
3. In false croup, or the crowing respiration of children.
4. In tinnitus aurium, when the throbbing is synchronous with the beating of the heart, and the tympanic arteries are distended, the cold douche to the nape of the neck, aided by the internal use of hydrobromic acid, may afford relief.

Sponging the chest of a phthisical patient with cold water lessens the susceptibility to cold.

Local applications of cold water are useful in promoting absorption of inflammatory effusions and exudations in the subacute and chronic stages; also in restoring the balance of the circulation in the liver and spleen when enlarged in malarial poisoning.

The hip- or sitz-bath is useful in hemorrhoids, prolapse of the rectum, and congestion of the pelvic viscera.

COLD AS A STYPTIC.

As a styptic, cold acts by constringing the arteries through its influence on the vaso-motor nerves. It is preferable to astringent drugs or other hæmostatics, because it obviates the necessity of applying irritant substances to the bleeding part. Nor need the cold always be applied directly to the seat of the hemorrhage; for it will also affect distant parts in accordance with the laws of the vaso-motor system, the most important of which are the following:

First.—An impression on the afferent nerves of a given part will cause a variation in the calibre of the arteries of that part.

Second.—An impression on the afferent nerves of a given part will cause a variation in the arteries of all organs situated directly beneath that part.

Third.—In the case of organs which are in pairs and perfectly symmetrical, as the eyes, ears, hands, and feet (the lungs, kidneys, and testicles are not), variations in the calibre of the arteries of one will cause a similar variation in the other.

Fourth.—Variations in the calibre of the arteries of certain parts are accompanied by corresponding changes in the arteries of certain other parts, and these particular associations are to be determined by experiment: for example, the relation between the circulation of the feet and that of the pelvic viscera and the pharynx, and the relation of the circulation at the nape of the neck to that of the head and face.

The following instances will suffice to illustrate the application of these laws in the use of cold:

1. Cold water applied directly to a bleeding surface.
2. Ice-bags to the epigastrium to check hæmatemesis.
3. Holding any cold body in one hand to arrest hemorrhage in the other.
4. Cold foot-baths to arrest metrorrhagia.

In post-partum hemorrhage the best means of applying cold is by ether spray, for the sudden and intense impression produced causes effectual contrac-

tion of the uterus without chilling the patient. If ether spray is not available, cold water should be poured upon the abdomen from a height of two or three feet, the shock of the falling water materially assisting the action of the cold. Either of the above measures may be used for hæmoptysis.

COLD AS AN ANTIPHLOGISTIC.

As an antiphlogistic, cold may be used to arrest an acute inflammation, unless suppuration has occurred, or to prevent inflammation when threatened. This it does by causing a protracted constriction of the arteries, thereby preventing the active congestion essential to all acute inflammation. It should be invariably applied as dry cold, directly to the part affected, in sufficient intensity to relieve pain, and continued so long as the exciting cause exists. If, before the tendency to inflammation has entirely disappeared, a neuralgic pain occurs, it is a sign that the vaso-motor nerves have become exhausted, and the use of cold must at once be discontinued, or gangrene will result; moreover, the patient will feel more comfortable without than with the cold applications. This neuralgic pain is continuous, and, if the injured part be one of the extremities, it extends from the part injured toward the trunk. Inflammatory pain, on the other hand, is local throbbing, accompanied by local heat, and is relieved by more thorough applications of cold. In fractures, or other severe injuries near joints, the injured parts should be surrounded with pounded ice placed in pigs' bladders or rubber bags, two or three layers of perfectly dry muslin being placed between the skin and bags, lest the parts be chilled too suddenly. A bottle filled with ice-water makes a good antiphlogistic splint for injuries of the hand. Inflammation of the eyes may be controlled, and its spread from one eye to the other prevented, by means of cold applications. Ice-bags should be applied to the head and spine in epidemic cerebro-spinal meningitis. Cold applications will control the spread of erysipelas, and are the best means for relieving febrile headache. Headache from uterine trouble is best relieved by moist warmth. Cold should not be used antiphlogistically in any acute inflammation of internal organs except peritonitis with vomiting, and meningitis.

COLD AS AN ANÆSTHETIC.

The use of cold as an anæsthetic depends upon its physical property of freezing tissue and deadening sensation without injuring vitality. It is most useful in operations where no great thickness of tissue is involved, as in opening abscesses, amputation of fingers, Cæsarean section, and ovariotomy. In all cases the action of the cold should be secured as rapidly as possible. Apply ether spray to the part alone which is to be operated upon. Anæsthesia is complete as soon as the skin becomes white and glistening.

COLD AS AN ANTIPYRETIC.

When the abnormal elevation of the bodily temperature is due to insufficient radiation of heat, as in some nervous disorders, it is not generally in itself dangerous; for it has been known to reach 123° F., and remain there for several weeks. But if, as in fevers, the rise of temperature depends upon excessive chemical changes, then the heat itself is injurious, causing arrest of gland-secretion, as well as extensive destruction of tissue. In every fever there is a certain point beyond which, if the temperature rises, certain structural changes will take place. The glands become affected with cloudy swelling, and fatty degeneration ensues, and the muscles affected in the same manner become remarkably brittle.

The point at which these changes occur differs in each fever. In scarlet fever it is 105° F.; in typhoid fever 106° F.; in relapsing fever from 107° to 108° F.; and in erysipelas still higher. Beyond this dangerous point in each fever the temperature should not be allowed to rise, but must be lowered by the use of cold, the result of which is simply the abstraction of heat. This may be effected by immersion in a cold bath or by the cold pack. Place the patient in a bath at 75° F., and gradually cool the water down to 65° or 60° F.—never lower, and at the same time use cold affusions to the head continuously. At first the temperature will rise slightly, owing to the blood being driven from the surface of the body into the viscera, which are always a little warmer than the skin; but the bath should be continued until the temperature is reduced to 100° F., provided the fall is gradual—that is, one degree in six, five, four, or three minutes. If it falls one degree in two and a half minutes, stop the bath when the temperature has reached 101° F.; for in most cases a further reduction of one degree will occur after the bath is discontinued. If the fall in temperature during the bath be one degree in *two* minutes, the patient should be taken out at once, whatever the actual temperature may be; for in such cases there is danger of the subsequent fall becoming uncontrollable, reaching perhaps 97° F., and the patient passing into collapse. Should this at any time occur, wrap the patient in hot blankets, apply hot saucers to the epigastrium, and give brandy or other stimulants.

When, for any reason, the bath is impracticable, the cold pack may be used, always, however, with the same precautions as in the use of the cold bath. First wrap the patient in a sheet wrung out of water at an ordinary temperature, say 70° F., and then lay on other sheets wrung out of ice-water. The cold bath or pack should be repeated often enough to keep the temperature below the point of danger for that particular disease. If necessary, use one every hour. If, however, two or three a day are sufficient, one should be so timed as to be given just before the highest rise of the fever-heat—that is, usually between two and three o'clock in the afternoon.

The contraindications to the antipyretic use of cold are hemorrhage from the bowels and notable variations of temperature from the regular course. Bronchitis and pneumonia are not necessarily contraindications.

INJURY OF EYES FROM CHLORAL.—Dr. G. H. Felton, of Haverhill, Mass., writes: "An instance has just come to my knowledge in which two young ladies, sisters, suffered injury to the eyes from the use of chloral. I did not ascertain the amount used, but it was apparently administered in the usual small doses, and continued only a very few days. The eyes in both cases became extremely painful, compelling the patients to remain several days in a dark room, and a permanent weakness remains (after two years), requiring the occasional use of colored glasses, and greatly impairing the usefulness of the eyes. Has chloral ever before been known to produce a similar effect?"

CLIMATE CURE IN NERVOUS DISEASES.

A Lecture Delivered before the Providence Medical Association, Nov. 3, 1879.

By WILLIAM F. HUTCHINSON, A.M., M.D.,

late passed asst. surgeon u.s.n.

Gentlemen:—I am to address you this evening upon what I term "climate cure" for cases of diseases of the nervous system. The various sanitaria of the globe have been the resort of invalids ever since the most remote historic ages, and in so far as diseases of the respiratory tract are concerned, every known resort has been carefully investigated, tabulated, and published. Every one knows or can readily ascertain, by reference to records close at hand, the air pressure, the temperature, and the amount of moisture in the atmosphere of almost any of them—and, furnished with these data, can apply them to individual cases with more or less success. But I hope to be able to show you that something vastly different from this is essential when we come to consider the protean forms of nerve derangement.

As a majority of the diseases above referred to are usually the result of lack of nutrition, it will be evident that remedial measures must be such as tend to promote an increase of assimilative power—a better metamorphosis of certain elements of food into nerve cells. Now, while tonics and stimulants play a leading part in the treatment of these ills, it is only as adjuvants that they can be useful, when the assimilative functions lie dormant by reason of general nerve exhaustion. It is the fashion to prescribe bitter preparations of steel and bark, of strychnia and phosphorus, of alcohol and chloral, until the wearied stomach rebels, and will stand no more. And, when the most eminent authorities in the profession have made themselves widely heard in favor of a different course, there can be but little excuse for a continuance in the same routine of treatment that obtained twenty years ago. The chief trouble with our physicians seems to be that this matter of climate cure is very generally overlooked, or, at best, but cursorily glanced at. Patients are sent to the sea who should go to the mountains; those needing thin, highly oxygenated air, to the sea; patients who have not vitality enough to stand the freezing-point of Fahrenheit go to Minnesota, and those whose lymphatic temperament and plentiful adipose tissue would stand any amount of cold, are directed southward. In too many cases such advice, as blindly followed as given, proves but the finger-post to another world. I have seen case after case of tuberculous lung sent to the soft moist air of Florida or Nassau, and result fatally, which would, in all human probability, have taken a different course in an inland climate—one at the same time dry and warm. It should be constantly borne in mind that an elevated temperature is by no means the most important point to consider; that it is the dew-point, the saturation level of the atmosphere which needs to be kept steadily under observation. Broadly speaking, keep patients suffering from pulmonary disease in thin dry air, and nerve invalids in heavy moist air.

The sea air, far from land, often puts to rest neuralgias and nerve-tire, and effects the final cure of the patient. We commend the sea voyage.

Avoid the rail! When surrounded with every comfort possible even to a Pullman car, its disadvantages are numerous and great. Rest there is none, nor proper food, and sleep comes only when sheer exhaustion compels it. Give me two patients bound, let us say, to Southern California, one of whom shall go by rail and the other by the Isthmus route, and the difference upon arrival will be wonderful. During the sea trip of four weeks, with the daily increasing comfort which familiarity with ship-surroundings gives, with the glimpses of tropical life caught at Panama and up the Mexican coast, with regular meals and regular sleep, improvement is rapid and thorough.

It is my desire to present here, with all possible force, the necessity of physicians speaking upon all points connected with climate cure, from actual experience, or of refraining from speaking at all. With men present in every large community whom years of travel and experience have made familiar with the important points in climate cure, there should be no danger of misdirection; and if I am successful in impressing upon you the fundamental truth of the necessity of investigating thoroughly the points for and against any specified resort, I shall be content. Books on climate tell us but little: they are usually compilations of statistics and figures made by some non-professional observer; and a single visit by an intelligent physician to Minnesota in winter or to the West Indies, is worth more to him than a decade's record of temperature, barometric or hygrometric pressure alone. When we read of certain average barometric pressure and range of temperature, accompanied by the dew-point for the same time, nothing seems easier than to settle in one's mind: "That is just the place to send Mr. J.! Exactly the climate for his weak lungs!" But if you will accompany Mr. J. to the enviable locality, you may find how easily figures can mislead. A thousand subtle influences which are utterly beyond instrumental measurement—a thousand seeming trifles, of which you cannot know except by personal investigation—frequently more than nullify the advantages which you hoped to secure to him by the change; and when Mr. J. returns he is worse.

Last spring, one of our physicians placed under my care a lady who had been for twenty years a sufferer from that very prevalent American disease, neurasthenia—nerve-tire. She had been under the care of various eminent practitioners all this time, and, shortly after her first visit, brought with her a file of copies of prescriptions, which was a curiosity in its way. Every preparation of iron; of cinchona bark and its alkaloids; of strychnia and its compounds; of phosphorus; of cod-liver oil and its emulsions; in fine, of every substance, animal, vegetable, or mineral, which is known or thought to possess a specific influence upon the nervous system, was therein represented. The poor lady told me that, having accumulated quite a stock of these drugs, she would frequently take several kinds in one day, hoping—to use her own words—to hit the mark with some one of them.

The trouble was, there was no mark to hit. The assimilative glands were paralyzed, and the only effect of a continuance of such a regime, must of necessity have been harmful. As she could not then leave the city, I directed her to stop at once all forms of medication, to confine herself strictly to a skim-milk diet, and commenced daily applications of a very fine faradic current over the head and upper part of the body. Nothing was so difficult for her to do as to relinquish the old habit of taking medicines, and she would nightly beg her husband, in piteous tones, for her beloved drugs. But he resolutely seconded

ity effects, commencing by consuming to the flame the dome the pharmacy, and she was already gleaming when, a few weeks later, I advised her to go to New port for the summer. Now she is returned—after a season at the sea-shore—after regular salt baths and open air exercise, and after four months rigid adherence to a milk diet—so much changed for the better as to be scarcely recognizable. In passing, I may say that I consider Newport one of the very best summer climates for nerve invalids in the world. Its advantages are too numerous to even allude to—its chief drawback being that one's purse is depleted there with an ease and rapidity which startles the unaccustomed visitor.

Since 1858 I have devoted a portion of every year to travel; and for the last six years, in company with a small number of patients—nerve invalids all—we have sought such lands as seemed best suited to our needs, and in one instance only has the change of climate failed to be of benefit. The changes thus wrought, often by single voyages, are due to rest and the subtle influences of total change. Rest, enforced by the confined precincts of the ship, and made sanative in a high degree by ocean breezes—rest from business cares and worries, from home duties and home-work.

All the functions of life—notably those peculiar to women—are performed with great regularity at sea, after the preliminary fillip of sea-sickness, and no appetizers are necessary. A good ship, attentive service, and first-class fare, are imperious necessities, and I am glad to say that our leading coast lines now leave but little to complain of in these matters.

The journey should be a sufficiently long one. If the patient be a man of business who has torn himself loose from great interests with infinite difficulty, the advent of a daily mail laden with requests for advice or solutions of troublesome details, or the presence of a telegraph station with its possibilities of instant communication with cares which should be left behind, are disturbing factors in our scheme of cure. It is better to get entirely beyond their reach, or, at least, far enough away to make any idea of return before the appointed time, entirely out of the question. No news is good news, and the proverb loses its triteness when once you swing clear of the great channels of communication of the world.

It is better not to go alone. Even if acquaintanceship is not made until arrival on shipboard, the knowledge of common interest, of a common object to be attained, speedily produces a warm cordiality, which often ripens into friendship. Then, too, it is much less expensive for a party than for a single person.

It should be borne in mind that there is no more exhausting work in the world than sight-seeing. Nerve and muscle alike give way under the heavy burden, and the brain cannot properly care for impressions which succeed each other so rapidly. For this reason, I rarely recommend European resorts to nerve invalids. There are none of them that can be reached without traversing one or more of the world's great capitals, whose attractions are much too strong to be withstood; and the steady strain of a week in London or Paris has more than once proven irremediable.

There are comparatively few places in the world which offer advantages to the nerve invalid sufficiently unbalanced by discomforts, to which we may send them, and none within the limits of the Eastern United States where a winter residence is to be recommended. Our climate is too dry, too changeable, as a rule, and the lack of adipose tissue, which is almost a distinctive feature of the American, as well as his peculiar nervous manner, attests the fact. In New England heredity plays a prominent role in transmitting tendencies in this direction. We are for the greater part descended from generations of pork and pie-eating ancestors, whose idea of correct living was continued to the indispensable task of satisfying hunger, and it was esteemed a virtue to do this in the most expeditious and cheapest way. The blood, which was thus rendered impure, continuing to be impaired by a continuance of like diet, was incapable of resisting malign or adverse climatic influences; and it is certain that, either from this or some unknown reason, New England people suffer in a larger ratio from nervous diseases than residents in the West and Southwest. So it is essential, in advising climate cure, to make as radical a change as space and time will permit, studying the idiosyncrasies and possibilities of each case separately.

For a summer home there is none equal to our own Newport. The heavy sea-fogs, which are sometimes complained of, are in themselves most active agents in quieting irritable nerves. Its amusements, in the way of boating, riding, and reading-rooms, are unsurpassed. It is too near the centres of trade and toil to permit freedom from business annoyances to be secured, and it is difficult to remove the effect while the cause remains. Still, taken all in all, it is undoubtedly the best place in North America to which we can send a nerve invalid for a summer residence. Next to Newport should be placed Old Point Comfort. It has a few decided advantages over the first named, in that, being further south, the season is prolonged, and the early autumn much less changeable, and that it is a little farther away. Another item is its comparative cheapness. But, aside from these two places, it matters little where on our Northern sea-coast the summer home is chosen. It is difficult to go wrong if one does not go south of Virginia. These remarks apply with equal force to the Pacific coast. From Seattle on Puget Sound, to Tacahuama in Southern Chili, there are four places only which are used for summer resorts, and, as these in nowise differ from our nearer stations, they may be passed. The summer is not the time of trouble.

It is the winter resort which is most needed, and the question is, Where shall we send them then? Within easy reach of our shores, I know of but three places combining the requisite qualifications, namely, Bermuda, the Bahamas, and the Windward Islands. Off the Pacific coast there are the Sandwich Islands, making in all four resorts, which I propose briefly to review in turn. The Azores and Canaries are placed out of the category, by reason of irregular, indefinite communication and utter vacuity of everything but climate after getting there. The Bermudas, our nearest neighbors, naturally come first. Distant only about six hundred miles from our coast, easily reached by a weekly line of steamers from New York, with one first-class hotel, the Hamilton House, and numerous private boarding-houses, they offer many attractions. The climate is good, its winter range, however, being a little too low for our invalids—60° to 66° Fahr.—while the islands are swept by constant breezes. There is a great number of islets in the group—some five hundred in all—but only one of them (St. George's) is of any importance, and is the military station of the colony, as well as the winter naval station of Her Britannic Majesty's North American Squadron. Owing to the curious shapes

of some of the islands, and the numberless channels which coral zoophytes have wrought between them, boating is almost as necessary as in Venice, and offers to the visitor constant and healthful amusement. But this and occasional impromptu entertainments by the officers of the station and their friends, are all the amusements to be had, and it is but a short time before anticipation of the steamer-day is the staple topic of thought and conversation. There is another drawback, which is more serious. Owing to its position far from any main-land, the dew-point is high, the atmosphere fully charged with saline vapors. This, in itself almost a *sine qui non*, is rendered an objection by reason of the very frequent high winds, which are sufficiently rapid to make outside exercise uncomfortable, and at times almost impracticable for women, on account of the driving salt mist. During the winter of 1877–8, I had several patients there who came home no better than they went, and various visits to the islands have convinced me that the main trouble was too low temperature with too much high wind.

The Bahamas come next, and, in my opinion, offer to the East American public the most valuable health resort in the world, if cases sent there are only carefully selected. The temperature is just right—70 to 75° Fahr.—with a remarkably small diurnal range of variation—rarely more than three or four degrees; its dew-point high and steady; its streets clean, with perfect drainage through the interstices of the coral from which all the islands are formed, and the society of the principal city, Nassau, remarkably good for a tropical colony. Its hotel, the Royal Victoria, is a fine building, comfortable in all its appointments, but, under its present management, is ill-kept and anything but attractive. Private boarding-houses, where prices range from nine to twelve dollars a week, are numerous and excellent. As for amusements, they are plentiful. No one can tire of sailing in the beautiful harbor, nor of driving through the island forests of native pine. There is no time of the day or night, except an hour just after sunset, when visitors may not wander at will through the white streets, or row about upon the green water of the harbor. The disadvantages are, that all meats and most vegetables are supplied from New York, and are not always either plentiful or good. If one is content to live upon couch food, as native diet is termed, he would do far better than at the hotel, as it is under the entire control of an utterly incompetent landlord. The sunglint is great and strong. As the streets are merely troughs cut in the white coral, and as the sun is almost never beclouded, the glare is very trying to strong eyes, and dangerous to weak ones. Patients should not go to the Bahamas who have lung complications. A large proportion of the natives die from pulmonary phthisis, and cases of rapid decline among visitors of this class are numerous. The American physician making a call at Nassau will find the faculty there ready to receive him with urbane cordiality, and he will also find the gentlemen composing it peers of any in the profession.

Further still south are the Windward Islands. Until lately, owing to the extreme difficulty of reaching them, these charming jewels of the sea have been but little known, even as parts of the civilized world, and not at all as sanitaria.

They are of all geological formations—coral, volcanic, calcareous, and primitive; and they thus offer a wide range of choice as to character of scenery. Belonging to six nationalities—England, France, Sweden, Holland, Denmark, and Spain—each island fully imbued with the spirit and pride of fatherland, a trip among them offers an opportunity now rarely afforded of studying the effects of change of climate in modifying hereditary traits of character and in subduing such forms of nervous derangement as are almost peculiar to the country where grew the parent stem. There is but little difference in climate in the different islands of the group, all being alike tropical, only differing as to drainage as they differ in geological formation. But there is a vast difference between them when we come to consider their relative facilities for entertaining visitors. At once we must drop from consideration the three most northern islands—Antigua, Guadaloupe, and Dominica—which have no sort of accommodations for an invalid. But when we arrive at Martinique, all the beauties of a summer paradise greet us, as well as the more prosaic but equally necessary comfort of a most excellent hotel. Surrounding the hotel, in fact covering a good part of the island, are lovely gardens. Were it not for one pest, I would give to Martinique the palm. But there is no rose without a thorn, and in this case the thorn is very sharp and very deadly. A small snake infests the island, whose bite is commonly and rapidly fatal. The "lance de fer"—the iron lance—is almost exactly the size and color of a black lead-pencil, and has as great a fondness for bowers of shade as his victims, with a singularly uncomfortable habit of coiling himself upon chairs and seats. A certain number of natives are killed every year by this venomous pest, and its presence destroys, in a great degree, the keen pleasure which Nature's beauty would otherwise confer. Barbadoes, the colonial capital of British West Indies, is a bustling, busy town, with fine public buildings and excellent shops. It offers, however, no especial attractions to the invalid other than a pleasure call will give, and we may at once go to the end of our route in this direction and disembark at Trinidad. It would be remarkable that this charming island should have been so long neglected as a resort, were it not that there has been, until within the year, no regular steam communication, and that English colonial authorities rather view with coolness the advent of their homes into notoriety. But a better spirit is beginning to prevail, and any visitors who may go there this winter may rest assured of a cordial reception. Dr. James De Wolf, who has been a resident of the island some ten years, and who has gained an enviable reputation, assures me that there is no place in the West Indies where an American invalid may be so soon and so utterly at home. An English community, no interpreters are needed; the winter climate is delicious, with a range of about 14° Fahr., from the coast to the elevated plateau in the background; accommodations are plentiful and good; prices moderate, and society first class. And one very important matter suggests itself to me just here: I have noticed, in more than one resort, that those who are among the earlier visitors get the cream of it. As soon as the natives learn the fact that Americans delight in being humbugged and in paying exorbitant prices for the luxury, they accommodate them in a liberal manner. It takes about five years to get the thing fairly into their heads, it being so totally opposed to their simple ideas of honesty; but once planted, it grows with marvellous rapidity.

But of all the sanitaria for nerve disease in the world, the one which is nearest perfection has been placed by distance at the disposal of our friends of the Pacific slope—the Sandwich Islands. With a choice of climate from tropic to northern temperate,

there is everything to tempt and absolutely nothing to repel the seeker for health and recreation in these isles of the sun.

As to the question, that too is under complete control, it is only necessary to change one's location a few miles to change it, for, on the windward side of the island it rains almost constantly, on the lee side, scarcely ever. I consider the Sandwich Islands the best place in the world for a nerve invalid, and would not qualify this assertion in any way, were they as accessible to our Eastern friends as to Californians.

Looking back, I must give the palm, so far as we are concerned directly, to the West Indies. Either Trinidad or Nassau for a stay, and the steamship trip for a shorter vacation.

Permit me, in closing, to repeat a caution, of which I have before strongly spoken, and this time in the words of a colleague who is excellent authority—Dr. Beard. He says: "Travelling, indeed, is no more a specific than any other medicine in nerve exhaustion. Indiscriminately prescribed, especially without making a differential diagnosis of the case, it is unscientific. It is one of the best remedies; it may be one of the worst remedies; it is a specific for a certain case; it may be precisely the most injurious thing that can be suggested for another case. Almost all medicines are apt to be used indiscriminately. But I doubt whether there is any medicine which is more indiscriminately used than travel, especially in the form of a trip to Europe."

I cannot too forcibly endorse his words, and it is precisely to this end, the proper application of the theories of climate cure, that I have addressed you this evening.

Original Communications.

ACONITE AND OPIUM ANTIDOTAL (?)

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At 10 P.M., on a Sunday in April, 1866, Dr. Budd called on me and asked me visit a patient of his who had been taken very sick at his house, where she had called about three hours before. On entering the chamber, I found a lady about thirty years of age, exceedingly restless, moving her arms and legs and body continually; her features pinched and bloodless; her skin cold and clammy; pulseless at the wrist; the heart beating feebly and slowly. She appeared to be *in extremis*. She had been purging and vomiting for more than two hours. A teaspoonful of water could not be retained by the stomach. It was clear that what was to be done must be done quickly. I suggested to Dr. Budd, as there was no hope of help from the stomach, that we try an injection of cold water and brandy into the bowels, in the hope of getting a pulse. This was done immediately, and was rejected as soon as given.

I then asked the patient what she had eaten for dinner, feeling certain that these symptoms were the effects of poison, and not of spontaneous disease. This question brought to Dr. Budd's recollection the fact that he had prescribed tinct. of aconite for her some months before, and he asked her: "Have you taken any of the medicine that I gave you last fall, of which I told you you must never take more than five drops?" "Yes, doctor, I took some of it just as I left home." "How much?" "I don't know; I put the bottle to my mouth and took a little swallow." This was at 7 o'clock, or a little past, and soon after a pretty full 6 o'clock dinner. From this it appears that her mind, in the midst of all this physical disturbance, was clear. Finding that we could not reach the heart by stimulants (subcutaneous injection of alcoholics was not then thought of), we addressed ourselves to the restlessness, and concluded to give a hypodermic injection of fifteen drops of Magendie's solution of morphine.

The effect was little less than magical. In five minutes the restlessness was gone, and in ten minutes she was sleeping quietly. There was no more vomiting or purging; the pulse returned at the wrist. I left Dr. Budd at 10.30, and promised to return at 8 A.M. the next day. At my second visit I was informed that the patient slept well till 6 o'clock in the morning, and then awakened with a renewal of the purging and vomiting and restlessness, when Dr. Budd injected ten drops of the same solution. This was followed by perfect rest and sleep. At 8 A.M. she had nothing to complain of but weakness and soreness of the muscles, from their agitation the night before.

This result was a discovery to us both, for we had never heard that opium was an antidote to aconite, and the morphine was given only in the hope that by its sedative power it would quiet the restlessness.

This case was published in the MEDICAL RECORD, vol. i., p. 169, but it was from notes of a verbal report, and as there are certain errors in that record, it is here reported with corrections.

The publication of Dr. O'Brien's case, similarly treated, in the RECORD of Feb. 8, 1879, without any reference to that case, suggested the reproduction of it.

In this connection I should, perhaps, refer to a case of poisoning by aconite, which shows criminal carelessness on the part of a druggist. It occurred before the one given above, and was treated by emesis and brandy—gastro-enteritis not being a feature of it.

On Sunday morning, after a late breakfast, a gentleman, feeling the need of alvine evacuation, called, on his way to church, upon a druggist, and asked for a teaspoonful of the tincture of rhubarb. It did not taste like rhubarb, but he thought it must be right, and went on. At church, in half an hour, he began to feel very uncomfortable. His sight was obscured. He felt as if his features were moving variously on his face. These feelings, with tingling, increased rather slowly, as the poison was mixed with his food and was absorbed slowly. During the sermon he felt as if he must go home, but, unwilling to make a disturbance, he leaned his head forward on the back of the pew in front of him, and stayed to the end of the service, but comprehended very little what was said or done. As he attempted to rise, he found that he could not stand steadily; but with the aid of friends got home, and sent for his physician, Dr. Linsly. Dr. Linsly saw him with very little delay, and at once suspected he had taken some poison. After prescribing an emetic, he sent for me, and went himself to the druggist. There he discovered that his patient had taken the tincture of aconite—a teaspoonful. Then the druggist made a confession, which nothing but a conscious culpability would, probably, ever have drawn from him: that as the bottle had been drawn down from time to time, alcohol had been added without additional aconite, and he hoped it would not be very dangerous.

I do not remember the symptoms in detail; but the great danger was collapse, such as occurs from an overdose of veratrum viride. His pulse was slow and feeble, with sense of great prostration; feet and hands cold; a slow capillary circulation, with blueness of the nails. He and his friends thought he would surely die, but after the vomiting, to remove any aconite that might be mingled with the still unabsorbed food, we administered brandy freely and resorted to warm friction, and by 10 P.M. he was out of danger.

There was a sequel to this that cannot be without interest to the brethren—an epiphenomenon. Some years after this poisoning, I had some business with one of the city banks, and one of the directors brought me to the president, and was about to introduce me to him, when he exclaimed: "I need no introduction to that man, he and Dr. Linsly saved my life; and, doctor, if you ever want any money, you know where to get it." I have not yet drawn on him beyond the regulation fees.

The first of these cases, in exhibiting the relations of opium and aconite, is so well corroborated by Dr. O'Brien's case, that I offer it to the profession as suggesting probable antidotal relations, with more confidence than I did to the New York Academy of Medicine in 1866.

MALIGNANT DEGENERATION OF A FIBROID TUMOR OF THE UTERUS.

LARGE, FALSE ANEURISM IN THE SUBSTANCE OF THE GROWTH.

DRS. ALBERT N. BLODGETT AND CLIFTON E. WING.

BOSTON, MASSACHUSETTS.

THE following case presented some features which are so uncommon that it is considered worthy of being recorded:

Mrs. E. F——, a native of Massachusetts, was, at the time of her death, in November, 1878, fifty-three years of age. She was married when twenty-four. Had been a widow a number of years. Never was pregnant. Menstruation began at about the age of fourteen, and during all her menstrual life was remarkably regular, recurring each twenty-eighth day with but one exception, when after exposure to cold its appearance was delayed two weeks, and then, for the only time in her life, was accompanied with some pain. The flow usually lasted ten or eleven days; was always profuse, but never enough to cause much prostration or give rise to alarm, and never required treatment. She never had much leucorrhœa. Menstruation apparently ceased the January before her death, but reappeared in small amount in July, and again, for the last time, in August.

At the age of twenty-five (one year after marriage), on attempting to move a heavy piece of furniture, she "felt something give way," as she expressed it, and feeling her abdomen at the seat of the sensation, she for the first time detected the presence of a hard mass of considerable size. This continued to grow gradually larger up to the time of her death. Naturally enough, the lady, when she discovered the enlargement, regarded the strain which she had given herself as its cause, but doubtless the tumor had then existed for a considerable time, and in all probability her muscular effort caused the uterine mass to move, and this gave her the sensation which she experienced.

The tumor did not at this time cause much inconvenience. It was neither painful nor tender, but as it did not disappear, the lady, after a while, took medical advice regarding it, and was told that she had an ovarian tumor. This view of her case she held until a few months before her death, although her family attendant, Dr. Brick, of Worcester, who attended her in her last sickness, has informed me that he regarded the tumor as a uterine fibroid, and supposed that she understood his opinion. She made several changes of residence during her married life, and thus had occasion to employ a number of physicians at different times, but the idea of ovarian tumor seems to have been held by them all, with this one exception. She was a woman of much firmness of character, and when first told that she had an ovarian tumor, took the question of an operation for its removal under consideration (ovariotomy was not then as favorably regarded as now), and, after due deliberation, made up her mind, once and for all, that she would not undergo any operation. This partially explains why, although possessed of ample means, she never consulted a specialist nor any physician expert in such cases. Had she done so, the true nature of her trouble would, on proper examination, have been at once apparent. As it was, the wrong diagnosis caused the case to excite much attention in social circles, for she had a wide acquaintance and many friends, and after it was reported that she had an ovarian tumor, and had decided to have nothing done, it was generally supposed that she would die in a comparatively short time. When, contrary to all expectation, she continued to live, it created much comment, and her case was often cited as proving that the idea held by physicians that ovarian tumors were so fatal, if left to themselves, was erroneous. On several occasions, women with ovarian tumors, who had been advised to submit to ovariotomy, hearing of her case, came from a distance to talk with her before making up their minds. How much harm may have been in this way caused by the mistaken diagnosis cannot, of course, be determined.

In 1861 the lady had a severe attack of peritonitis following a journey by rail to New York, being confined to her room some months, and at several other times, after long drives or active exercise, she had attacks of abdominal tenderness, enough to confine her to the house for a few days, but nothing more serious up to the time of her last illness. In the last years of her life she had several attacks of renal colic, passing at various times a considerable amount of gravel from the bladder. With these exceptions, her sufferings were mainly those arising from the weight and size of the abdominal tumor, which for years made her larger than a woman at the full term of pregnancy; but, notwithstanding the burden which she carried, she led a much more active life than most women, taking into her own hands the charge of her large country place, and always herself driving her pair of ponies. Some time before her last illness she told me, in talking about herself, that she thought she had had quite as little real suffering as the average of women. She was accustomed to eat but little, as "there did not seem to be room for much." She passed water rather frequently, but, strange to say, her bowels were always remarkably regular.

In the spring before her death her friends noticed that she was not seeming as strong as usual, and during the early heated term of that year she was much prostrated, but, on the advent of cooler weather felt better. Still, she did not regain her usual strength. During a friendly visit at her house in the summer, she asked my advice about what she had

considered an umbilical hernia. On examination I found at the navel a large mass of varicose veins, evidently caused by the pressure of the tumor. She also had a bulging at the right inguinal ring, which did not seem to be either intestine or omentum, but simply peritoneum. The tumor at this time presented the hard, rounded surface, and characteristic feel of a uterine fibroid, and appeared to fill the whole lower abdomen, extending above the navel. In the course of the conversation she remarked to me how curious it was that she should have lived so long with such a tumor. I explained to her that there was a great difference in abdominal tumors, that some were of rapid growth, and therefore quickly fatal if left to themselves, citing ovarian tumors as examples, while others were of very slow growth, and but rarely fatal, instancing fibroid tumors of the uterus, such as hers was. She asked if I thought it was a solid tumor of the womb itself, and not connected with the ovaries. I replied, that there could be no reasonable doubt that such was the case. She gave no evidence of being surprised, and I did not then know that she had ever been told that she had an *ovarian* tumor. I learned afterward, that when I left she went to a friend and expressed the greatest astonishment at what I had told her.

Her fatal attack of illness, lasting about three months, came on after she had spent most of a day at a fair, where she was upon her feet much of the time—afterward riding a number of miles to her home. She felt, at the time, that she had done too much. She was soon after taken with abdominal pain and tenderness, and symptoms such as might accompany peritonitis. After a while a large effusion took place into the abdominal cavity. The increased distention gave her much distress, and interfered with respiration, and her physician, Dr. Brick, used an aspirator, and drew off a large quantity of fluid with considerable relief, but she gradually failed, and finally died very quietly, having previously made the request that I should make an examination of her body, in order that if anything should be learned from it, other sufferers might in the future have the benefit of the knowledge thus obtained.

Feeling that the post-mortem examination should be in the hands of a competent pathologist, I requested Dr. Blodgett to make it, and he has written out the following account of what he found:

Autopsy, twenty-one hours post-mortem.—The body is that of a tall, well-nourished person. Rigor mortis not well pronounced. The general appearances give no evidence of prolonged suffering. Limbs generally well developed; face somewhat emaciated. Lower extremities moderately œdematous, particularly below the knees; upper extremities free from œdema. Upon surface of body generally more or less extensive livores, most marked upon dependent surfaces. Two centimetres (¾ inch) to right of umbilicus is a surface of cicatricial skin which extends 7.5 cm. (3¼ in.) toward the pubes, and has a breadth varying from 4 cm. (1½ in.) to 8 cm. (3 in.). The skin is smooth and tense at this part. The cicatrix is not of recent date. Below is a small red spot covered with plasters, where, it is said, paracentesis was performed twenty-four hours before death. Abdomen is enormously distended, presenting almost the figure of a hemisphere, the axis of which would be a line drawn from the ensiform appendix to the symphysis pubis. Through the abdominal parietes a large solid mass can be felt, which occupies the whole of the lower part of the cavity of the abdomen and extends upward to a point half way between the umbilicus and ensiform cartilage, where there is an interval of distinct fluctuation, which is most perceptible in a line across the upper part of the abdomen. Nearer the ensiform appendix, fluctuation is no longer detected, the feeling being as if a soft solid were yielding before the pressure of the fingers. The liver cannot be felt, and percussion is unsatisfactory. The following are the measurements around the body: At the waist, 92.5 cm. (36 in.); at level of umbilicus, 121.5 cm. (47¾ in.); between umbilicus and pubis, 122 cm. (47¾ in.); from umbilicus to ensiform cartilage, 28 cm. (11 in.); from umbilicus to pubis, 30.5 cm. (11¾ in.), from umbilicus to anterior superior spinous process of right ilium, 33.5 cm. (13 in.), from umbilicus to anterior superior spinous process of left ilium, 28.5 cm. (11¼ in.).

Panniculus adiposus thick, and the tissues generally quite moist. Muscular portion of abdominal wall very much attenuated and seemingly atrophied. Parietal peritoneum thickened almost to the density of fascia, feels brawny, and offers considerable resistance to the knife. Upon opening the abdomen a quantity, estimated at 3.5 litres (3¾ qts.), of bloody serum escaped from its cavity. Diaphragm is very much thickened and quite dense and firm in all parts, the muscular portions greatly hypertrophied, the concavity very much exaggerated, reaching on the right side to the third rib, on the left side to the third intercostal space. The internal surface of the peritoneum is covered with numerous hard, firm, rounded prominences, which are either attached by a flat surface to the peritoneum, or are, to a greater or less extent, pediculated and projected into the peritoneal cavity. They are generally of a rosy color and of an uniform consistency. A portion of peritoneum, about 10 cm. (3¾ in.) in diameter, situated midway between the umbilicus and the anterior superior spinous process of the right ilium, is covered with recent shaggy lymph, and at one point upon its surface is an adherent blood coagulum 2 cm. (¾ in.) in diameter and 1 cm. (⅜ in.) in thickness, which apparently followed the operation of paracentesis, and is at present in a state of partial disintegration. Upon the left side is a tuft of about thirty separate filiform processes, which are attached separately to the peritoneum at a point half way between the umbilicus and the axillary line, and extend to the surface of the pelvic growth to be presently described. The seat of attachment of these filamentous adhesions is a surface of about 8 square cm. (3¼ in.). The stomach is not visible, but is found in a position downward and backward from its normal situation in the immediate neighborhood of the spleen. The small bowel occupies a space of about 15 cm. (5¾ in.) by 25 cm. (9¾ in.) surface just below the ensiform appendix, and is much compressed. The surface of the bowel is dotted here and there with small nodular growths, similar to those observed upon the peritoneum. The liver is thickened and elongated, extending far into the left epigastric region, is of somewhat doughy consistency and of grayish, reddish-brown color. Upon being incised, tracings of fatty degeneration of the portal sections of the acini are observable, together with hyperæmia and pigmentation of those portions of the acini surrounding the ultimate branchings of the hepatic vein. The capsule of the liver is at some points thickened, and presents nodules varying in size from a pin's point to that of half a pea, scattered irregularly over its surface, more generally upon the lower aspect of the organ. The spleen presents nothing peculiar.

The whole of the remaining abdominal space is oc-

cupied by an enormous growth consisting of a large central mass surrounded by a number of smaller growths attached to its periphery and projecting in various directions from it. The mass in the centre is of roughly ellipsoidal form, presenting a depression in its posterior aspect, in which a portion of the small intestine is accommodated and entirely concealed from view (until the upper portion of the tumor is raised with the hands), and has a transverse diameter of about 20 cm. (7¾ in.), an antero-posterior diameter of about 17 cm. (6¾ in.), and a height of about 25 cm. (9¾ in.). Upon the right and left sides are excrescences in great number from 5 cm. (2 in.) to 15 cm. (5¾ in.) in diameter. These are most abundant behind and upon the left side, where they completely fill up the left iliac fossa. No trace of bladder, uterus, or rectum can be seen. The inguinal glands of both sides are enlarged and indurated, and the femoral vessels are accompanied in their way to the thigh by a dense funicular mass of tissue with bulbous enlargements scattered along its course.

Owing to extensive adhesions between the tumor and the pelvic organs, particularly on the posterior surface, the whole of the mass was now removed from the body, together with the abdominal blood-vessels, glands, kidneys, spleen, rectum, vagina, bladder, and ovaries, and was placed upon a table where the relations of the parts could be more carefully studied. The bladder was first laid open by an incision extending from the urethra to the fundus. The organ was of moderate size and contained no urine. No sacculations or other signs of vesical disease were observed, excepting a moderate injection of the smaller blood-vessels about the neck. The orifices of both ureters were found at the proper points in the bladder, and a flexible probe passed readily throughout the whole length of each. The vagina is about 13 cm. (5 in.) deep, quite narrow and tense. The finger inserted in it can detect nothing resembling cervix or os, but is arrested by a firm hard wall. Upon laying the vagina open, a linear fissure is discovered in its deepest portion, into which a probe can be passed in a sinuous direction, a distance of about 7 cm. (2¾ in.). The main direction of the canal is forward and toward the left side. Upon cutting the growth so as to expose the canal, this is seen to be the cavity of the uterus, and can be followed to a depth of 15 cm. (5¾ in.). In its course lay an elongated mass of thick gelatinous mucus of greenish-yellow color and tenacious character, and at the deepest portion of the canal are found two or three soft jelly-like mucous polypi which nearly fill its cavity, and are attached by small pedicles to its lining membrane. To the right and left of the uterine cavity the mass swells to a large tumor, upon the surface of which are numerous protuberances of various sizes, from that of a marble to that of an infant's head. The cut surface also shows numerous hard nodules of globular form, which are included in the mass and can be easily separated from the body of the growth. Upon its posterior aspect the tumor gives off many accessory growths, one of which extended deeply into the cul-de-sac of Douglas and pressed firmly upon the perineum between the rectum and vagina. Between the last mentioned portion and the main body of the growth are found, on each side, the ureters, each ureter lying much higher in the pelvis than the new growth, and closely applied to it, but not included in it. After long search the ovaries were found in a position upward, outward, and forward from this region. The left ovary is much encroached upon by a cystic formation of the size of a hen's egg in the broad ligament. The ovary itself seems to be in fairly normal condition. The left Fallopian tube is found and traced for a distance of 12 cm. (4¾ in.), at which point it is lost in the tissues about the tumor. It is pervious until it reaches this point, where no further canal can be discovered. The right ovary is the seat of numerous small cysts containing a clear, glairy fluid. One well-marked relic of menstruation was discovered. The right Fallopian tube cannot be found.

Upon incising the tumor more freely, so as to follow the course of the uterine canal to its extremity, the median orifices of both Fallopian tubes are found, and both are pervious as far as the point where they emerge from the tumor, at which place there is atresia of both tubes for the space of 0.5 cm. (¼ in.); beyond this point both tubes are again pervious. The left tube measures 20 cm. (7¾ in.), the right 28 cm. (11 in.) from the surface of the tumor to the fimbriated extremity. Several large calcareous masses are found in various parts of the tumor, some of which seem to have resulted from extensive central calcification of certain nodules of the new growth, while in other parts the hard masses are made up of numerous small distinct nuclei of separate calcification. In many parts of the tumor, the true uterine muscular tissue is still found, while in other parts it cannot be detected. A large soft nodule, 15 cm. (5¾ in.) in diameter, springs from the right side of the tumor at its posterior part, and upon being incised proved to be a *false aneurism* of 13 cm. (5¼ in.) diameter, the wall of which is composed of uterine muscular tissue, and which is filled with blood. That portion of the clot which is in apposition with the wall of the sac, presents the appearance of having been effused at some considerable period previous to the death of the patient, and is partially organized and quite adherent to the wall of the sac. The central portion of the mass is occupied by a large soft clot of recent blood. Large vessels can be traced in the wall of the sac, but no communication can be discovered with the mass in the centre. Upon carefully turning out the clot from the median half of the sac, a large calcareous mass is found at its base, which protrudes to a moderate extent into the cavity of the sac. Upon one side of this mass is a true aneurism of one of the larger vessels, of flattened shape, 3 cm. (1¼ in.) long, 1 cm. (⅜ in.) broad, and 0.5 cm. (¼ in.) deep. From the aneurism, blood-vessels pass in various directions, and two are discovered which open by torn and ragged extremities into the large sac before mentioned. A probe passed into either of these vessels emerges in the central clot of the large sac. This was afterward shown to the late Dr. Jackson, who pronounced it a remarkably exceptional occurrence, and said that in his large experience he had never observed a similar instance in connection with a fibroid tumor.

The rectum is flattened and closely applied to the pathological growth, to which it is firmly bound by connective-tissue adhesions. At the situation of the sigmoid flexure it is forced into the shape of the letter U; its calibre is much diminished, and in some parts almost obliterated. Above this portion the bowel is moderately distended with fæces, and seems to be in normal condition. The lumbar glands are bound firmly together about the cœliac axis, and are adherent to the posterior aspect of the tumor. The blood-vessels are not noticeably affected, and are pervious. The blood-supply to the pathological growth is mainly from branches of the internal iliac arteries, though other sources of nutrition may have existed. The kidneys were found in their normal relations to the aorta, and were carefully separated, leaving only

the ureters attached. These were followed downward and outward around the sides of the morbid growth, where they lay in intimate relations with it, but are not included in its structure. Both ureters are pervious, and show no signs of disturbance of function from the proximity of the diseased growth.

Microscopical examination of different portions of the foreign growth reveal a varying structure. The original tumor, in which the tissues of the uterus are found imbedded, is formed of dense connective tissue. Bundles of this tissue, with spindle-shaped cells, run in different directions, interlacing so as to form a close, firm structure, presenting the well-known appearances of an ordinary fibroid of the uterus. Some of the newer portions situated upon the periphery of the original growth possess the same structure, but others are composed of connective-tissue cells of varying shape and of large size, with large nuclei, provided with only a scanty intercellular substance, from which they easily separate, and float about in the field of the microscope, thus presenting a character not belonging to the structure of fibroid, but peculiar to sarcomatous growths. In many of the nodules projecting from all parts of the original fibroid the histological structure is so decidedly sarcomatous, that, judging from these portions alone, no one would suspect fibroma. The lymphatic glands of the lumbar plexus are enlarged and present the appearances of sarcomatous growth above described. The bronchial glands are affected in a peculiar manner: certain of them present only the ordinary structure and size of these glands, and are pigmented in the usual manner. Others are found in the immediate vicinity which are much enlarged, sometimes being double the size of their neighbors, and these upon section show the original pigmented gland in the centre, surrounded by a layer of varying thickness of a white color, which presents, under the microscope, the same general appearances as the sarcomatous growths in the pelvis, and are evidently of metastatic origin. Scattered through the pulmonary structure, more generally in the lower lobes, are numerous nodules of a similar structure. These are firm, white or whitish-yellow, and vary in size from that of a pin's head to that of half a pea. Throughout the whole abdomen are countless pendulous masses attached to the viscera, to the omentum, to the ligaments of the liver, to the surface of the bowel in its course, and to the whole upper part of the parietal peritoneum. These growths vary in size from that of a pea to that of a grape, are of somewhat irregular shape, of whitish-gray color, and prove to be of still another histological structure. They are made up of round cells, and surrounded by a capsular layer of varying density, and are good examples of *granulation tissue*, such as is found in the indurated base of chronic ulcers, and is also the medium of new formation in the healing of wounds. These excrescences seem to have resulted, not from any infection from the tumor, but from the long-continued irritation caused by its presence, and resemble the papillary growths sometimes seen in other parts of the body as the result of chronic inflammatory action. The kidneys were apparently normal, as were the remaining abdominal organs. The heart was not noticeably diseased. A considerable amount of fat was deposited on and about it, but not more than the amount corresponding to the corpulency of the individual. The valves are all in a healthy condition. The head was not examined.

In these days of operative interference the full history of such a case, left to run its natural course, is interesting, particularly so in this instance, on account of the rare conditions revealed by the autopsy.

In former times, uterine fibroids were pretty generally looked upon as of a malignant nature and confounded with "cancer," especially when they grew to very large size. More lately, since their benign character has been understood, many distinguished authorities have held to the opinion that they were never the seat of primary malignant degeneration, and there has been considerable discussion upon this point. At present, although the possibility of such degeneration is generally accepted, its rareness is denied by no one. There are but few undoubted cases on record. From the post-mortem appearances in this case there seemed but little doubt that the primary change began in the uterine mass, the changes found elsewhere being secondary in character.

The finding of the false aneurism in such a growth was entirely unexpected. That it should have attained such a size when its walls were formed of firm, dense, uterine tissue, is remarkable, and only to be explained by remembering that the principle of hydraulics utilized in the hydraulic press must have come into play here up to the time of the coagulation of the effused blood.

On abdominal palpation after death, I was surprised to feel the large mass formed by the aneurism, supposing at the time that it was an irregularity of the fibroid, and wondering why, in feeling of the tumor in my examination some months before, I had not at once detected it, as then there was apparently no water in the abdominal cavity, and the surface of the growth could be plainly felt. On explaining to an intimate friend of the deceased, who was with her constantly during her sickness, what was found at the autopsy, she at once asked if the aneurism would not account for the fact that the pain was always worse on the right side, and told me that the patient, during her sickness, often spoke of a strange "swashing" sensation at that point, saying that that was the only word which seemed to at all express the feeling. It therefore seems likely that the aneurism formed, and became filled with the clots found in it, during her last illness.

It is also worthy of notice that, with such a large, irregular fibroid, the woman never suffered with dysmenorrhœa; the menses were regular; metrorrhagia never occurred. Notwithstanding the encroachment upon the calibre of the rectum, there was no constipation, and in spite of their position between masses of the growth, the ureters were not obstructed and the kidneys remained healthy.

It is interesting to consider what might have been the result had an attempt been made to remove the uterine mass by the operation of hysterotomy, made popular of late years by the publication of the treatise of M. Péan, of Paris. The fact that with the exception of the tuft noted by Dr. Blodgett in his autopsy record, and which might have been easily separated, there were no adhesions *above the pelvis*, would very likely have induced the operator to go so far in attempting to separate those found *in the pelvis*, that before he was convinced the operation was not feasible, he would, perhaps, have inflicted an amount of damage incompatible with the recovery of the patient.

Again, supposing that the operator had succeeded in separating the pelvic adhesions, that portion of the growth which intruded upon Douglas' cul-de-sac lay so much lower in the pelvis than did the ureters, and the latter were in such intimate relation with the mass, that one or both of them might easily have been injured in the removal of the tumor.

This latter danger is not an imaginary one. I have myself seen the accident happen at the hands of a well-known operator. The case is reported in the *American Journal of Obstetrics* for August, 1876, but no mention is made of the autopsy or this fact disclosed by it. In this case the tumor weighed fifty pounds, and was of such rapid growth that it was at first thought to be ovarian. As in the case we report, there had been little or no leucorrhœa, no dysmenorrhœa, and, up to its cessation, one year before, perfect regularity of the menstrual function. The flow, however, had usually lasted but three days, and been scanty during that time. The patient's sufferings arose simply from the weight of the tumor. She was able to walk about, had a good appetite, and good digestion.

At the operation there were found pretty general adhesions at the upper part of the growth, which were easily separated. Luckily, there were no firm adhesions in the pelvis. Finally, the mass having been raised by assistants, the pedicle, consisting of the vagina and adjacent tissues, was ligated and cut, and the tumor removed. The patient, after rallying from the operation, soon began to show symptoms of internal hemorrhage, and next day the abdomen was again opened, cleansed of much effused blood, and a vessel, which had been torn in sep rating adhesions, was found bleeding and tied. The patient being very low, transfusion was attempted without result. The next day transfusion was again done, but with no perceptible effect, and the patient died.

At the autopsy considerable effused blood was found in the abdominal cavity, probably having come from other vessels torn in separating adhesions. A loop of the left ureter was found included in the ligature which had been tied about the upper part of the vagina. The ureter above the part was very much distended, and the corresponding kidney in a state of acute disintegration.

The operator, Dr. Thomas, in the last edition of his well-known text-book, mentions the case twice in the chapter on uterine fibroids. At one place, in speaking of the size to which such tumors sometimes grow, he simply states, without further particulars, the fact that he has "removed one with uterus and both ovaries" weighing fifty pounds. Twenty pages further along, a foot-note to a table of statistics in which the case is tabulated as fatal, gives the same information. There is no reference to the injury to the ureter, nor is the liability to this accident included in his mention of the dangers of removal of fibroid uteri by gastrotomy. Thus the only particularly instructive point about his case is not brought out. Curiously enough, the chapter closes with the sound remark, "gastrotomy should be performed only when life is in jeopardy."

Sickness During the Zulu War.—The sickness amongst the troops in Zululand during the late war was very great. The polluted water, the hot days and cold nights, and the exposure, were the chief causes. The most frequent diseases were fevers, diarrhœas, and pulmonary complaints. The most frequent fever was the simple continued. Enteric fever, when it occurred, was very fatal. Remittent fevers were not unfrequent. The dysenteries were produced by exposure, by neglect of diarrhœas, and in some cases by the cutting off of beers and spirits from those long accustomed to their use.—*Brit. Med. Journal.*

A NEW METHOD OF RECTAL ALIMENTATION.

By F. E. STEWART, Ph.G., M.D.,

NEW YORK.

In my article published in *New Remedies*, Vol. VIII., No. 12, entitled "A New Method of Rectal Medication," calling attention to rectal (gelatin) capsules, and the oleates of the alkaloids per rectum, the absorbent power of the intestinal mucous membrane was quite fully discussed. Advantage has long been taken of this power for the purpose of alimentation as well as medication, and although the rectum as an absorbing surface is inferior to the stomach, and for obvious reasons not fitted to take its place as the organ of digestion, still this power of taking up food is of great importance when for any cause the stomach is incapable of performing its function.

For alimentation the rectum can be resorted to as an auxiliary organ to the stomach, or it can be used for a time as a substitute for it, in supplying the system with food. It is to the former we wish to call attention, and to desiccated defibrinated blood as an agent especially adapted for rectal alimentation.

But, before proceeding, an explanation is necessary. For more than a year past the writer has been experimenting with defibrinated blood as an aliment in disease. The subject was suggested by the popular idea that warm, fresh, defibrinated blood, quaffed at the butcher's shambles, is remedial in consumption and other wasting diseases. Investigation of this singular practice certainly does show that many cases are remarkably benefited by it. This, of course, can be accounted for in many ways without referring it to the blood—the healthy outdoor exercise of a walk, or ride, to the abattoir, or diversion of the mind by so novel a remedy—but it cannot be denied that defibrinated blood is rich in the elements of nutrition, and the resulting benefit of its use is out of proportion to the novelty of the medicine, or healthy exercise in obtaining it.

To utilize, therefore, what appeared to be a valuable product, a process was devised for drying it, quickly to prevent decomposition, and at a low heat. After shipping a large invoice of this desiccated blood to Detroit, to be used as an aliment, I discovered that Dr. A. H. Smith, physician to St. Luke's Hospital, New York City, was also at work with defibrinated blood, and had proved its therapeutic worth in more than sixty cases. At my request, Dr. Smith substituted the dried article at St. Luke's, where it is now on trial and appears to be of equal worth to the blood before preparation.

This, then, will explain the reason why desiccated blood is brought to the notice of the profession as a new article for rectal alimentation.

There are three ways by which blood can be introduced into the system—per orem, by transfusion, and per rectum. The last named seems, for many reasons, the least objectionable. Naturally enough, drinking blood is disgusting to patients. Transfusion, even in the most careful hands, is not devoid of danger. But injection per rectum is an easy and safe operation, which can be frequently repeated without risk of injury.

Blood per rectum has also the advantage possessed by transfusion of not being subject to the changes incident to the process of digestion.

Various articles are used for rectal alimentation—milk, albumen, and lately albuminose has been recommended. To be of any use to the system they must be taken into the circulation, converted into

blood, or else substituted for it. Blood is the product of digestion, and it is supposed that before food can be converted into blood, the saliva, gastric, pancreatic, and intestinal juices and bile must perform their action, absorption must take place and, finally, that wonderful, vital constructive process by which the corpuscles are made, and the blood is fitted to perform its part in nutrition. If this be all true, blood cannot be manufactured from these articles when injected into the rectum, and their beneficial effect must be accounted for in some other way. It would seem, therefore, that blood itself, for rectal alimentation, if absorbed, would be more suitable to meet the wants of the system.

Blood is the food and air of the tissues. As it is the province of the vegetable world to convert the elements of surrounding nature into organic forms fitted for food, so it is the province of digestion to convert food into blood to feed the vital organs. Blood is therefore called the *vital fluid or the life*, and its presence in the vital organs is indispensable to their function. Only a momentary arrest from the brain results in syncope, or fainting away, and any organ deprived of it soon loses functional activity. Supplies for the growth and repair of the whole body are in the blood. Blood is but the body in a liquid state. Being, therefore, perfectly adapted to build and construct tissues, and indispensable to life, its administration would seem to be indicated when tissues are wasted and life is threatened by disease.

Like other vital organs, the nerves depend directly on the blood for their functional activity, and deprivation results in morbid phenomena. Close physiological relations exist between the red globules of the blood and the healthy life of the nerves. This relation is probably between the hemoglobine—the red coloring matter of the blood, which forms the principal substance of which the red globules are composed (about 25 to 30 per cent. of their weight, or 86 per cent. of their solid ingredients)—and the nerves. A morbid diminution of the red globules is designated anæmia. As the action of every organ in the body depends upon the nerves, it naturally follows that if they be impaired, there is a general deficiency of functional energy. All the vital functions are languidly performed. The action of the heart is feeble, and easily disturbed. Mental energy, strength of will, and purpose, are diminished. Neither can the action of impaired nerves on the secretory organs manufacture healthy digestive fluids for the preparation of food to be converted into healthy blood, so necessary for nerve supply. Then, too, the brain sympathizes in this condition, and the mind, becoming affected, in turn reacts on the nerves to increase the disorder.

Nutrition is directly under nerve control. Every secreting cell, every absorbing villi, the inherent power of each tissue to select from the blood appropriate matter for its repair, even the muscles for respiration, are supplied by artery and vein, with nerve to guide their action, for the purpose of furnishing them with blood, to be used for building new tissue, and to impart nerve-force to repair that lost in the exercise of their functions.

Desiccated blood is therefore suggested for rectal alimentation, when the life-powers are threatened by asthenia, due either to loss of blood, loss of nerve-power, or to both. It is indicated in all cases where, for any reason, digestion is impaired, in cachectic states from special constitutional poisons, and in all cases when impaired blood, nerves, or digestion give rise to the anæmic condition with its resulting general debility, hypochondriasis, or other functional disorder.

It is hardly reasonable to infer, and clinical experience does not justify us in believing, that blood is absorbed from the rectum without a breaking down of the corpuscles, but there are good reasons to suppose that it enters the system without marked chemical change, and it has been satisfactorily proved by Dr. Smith, and other scientific physicians, that its use is remarkably beneficial to patients. How much this is due to the hemoglobine and its action on the nerves, remains an interesting matter to determine.

Blood for rectal alimentation must be from healthy animals. Inflammatory blood from diseased cattle will not do, or blood from animals fatigued from long journeys. None but powerful, vigorous bullocks, fed and rested until the heart's action regains its normal tone, should be selected for this purpose.

Killing must be done in a manner to secure healthy blood. This can be accomplished only by bleeding to death. Striking on the head, or in any other way causing death from apnœa, prevents a proper arterialization of the blood. Blood from animals killed in this manner, or the inflammatory blood from diseased cattle, is unfit for use in the arts, and therefore must be too imperfect for employment in therapeutics.

Great care also must be taken in the preparation, due attention being paid to all chemical and vital phenomena. Long exposure to the air in a fluid condition, or too high heat, not only decomposes, but devitalizes it, and if the heat be raised to 160° F., coagulates the albumen. No heat above 110° F. should be used in the drying of blood, and the process should be as instantaneous as possible, and without agitation.

Desiccated blood, as thus prepared, is completely and readily soluble in water at all temperatures below 160° F., and contains all the elements of blood, except water and fibrin. The loss of the latter does not seem to impair its nutritive value, being but a very small proportion of the nitrogenous constituents of the blood.

A little more than a drachm of the dried article is necessary to represent a fluid ounce of blood of ordinary specific gravity, but it is sufficient to remember, in using, to employ a drachm to the ounce of water. To dissolve, it should be thrown into water, and allowed to stand until the albumen becomes perfectly soft, to prevent sticking to stirring rod or dish. Gentle agitation will then convert it into a perfectly homogeneous fluid, closely resembling fresh blood. It is a very difficult matter to dissolve dried blood by pouring water upon it, for it immediately adheres together in lumps, and sticks to everything brought into contact with it.

From four to six drachms of the powder daily, or more, is the dose, which may be given at once, at bedtime, or in divided portions during the day, as circumstances seem to require.

If a greater amount than can be absorbed be injected at once, and decomposition result therefrom, it is advised to wash out the rectum with tepid water before continuing the medication.

For further information on this subject, the reader is referred to Dr. Smith's paper, read before the New York Academy of Medicine, to his paper before the Therapeutical Society, and to the minutes of these respective societies for their action in the matter.

The MEDICAL RECORD and *New York Journal* have reported on these papers, and are also referred to as containing very nearly as full information.

Progress of Medical Science.

Clinical Studies on the Hemorrhages of Whooping-Cough.—At a recent meeting of the *Académie de Médecine*, M. Henri Roger read a very interesting paper with the above title. He considered successively *epistaxis*, which is produced in a direct manner by the convulsive shocks of the cough, and which only rarely becomes dangerous from its abundance and frequent repetition—in which case it is complicated by an alteration of the blood; *subconjunctival* or *palpebral ecchymoses*, which also depend on the cough, and which sometimes serve to differentiate the cough of pertussis from that of ordinary bronchitis; *otorrhagia*, *purpura*, and certain *visceral hemorrhages*. He then took up the subject of *hæmoptysis*, and demonstrated by numerous observations that this form of hemorrhage, as well as hæmatemesis, is exceedingly rare in children. In almost all cases the supposed hæmoptysis of pertussis is really a pseudo-hæmoptysis—the blood being furnished by the nose, mouth, or pharynx, but it may almost be said never by the pulmonary organs. Hemorrhage from the mouth comes next to epistaxis in point of frequency. The blood may come from the gums, or from a solution of continuity in the mucous membrane of the cheeks or tongue; sometimes it comes from the pharynx or the nasal fossæ—the buccal hemorrhage in this last case being preceded and accompanied by epistaxis. Occasionally the blood expectorated has a complex origin, being derived simultaneously from the nasal and buccal cavities. Sometimes, at the end of a paroxysm, the child expectorates a bloody foam, which is produced by the intimate mixture of the blood with bronchial mucus that has become aërated by the repeated concussions, and this expectoration of bloody froth is often wrongly regarded as a sign of tuberculosis, an error which can readily be recognized by an examination of the mouth. M. Roger claims, moreover, that pulmonary hemorrhage of tubercular origin is excessively rare in childhood; he has only observed it after the tenth year, and even then only in exceptional cases. With regard to early infancy, it may be said to be *exempt from hæmoptysis*—pulmonary hemorrhage being never at this age the initial sign of phthisis. M. Roger does not claim that true hæmoptysis absolutely never occurs, but merely that it is very rare; on this point he differs from Trousseau, who said that it is pretty often met with.

Pseudo-hæmatemesis is also observed in pertussis. When a child suffering from this affection seems to vomit blood, a careful examination of the nasal fossæ will always reveal the fact that an epistaxis has existed. The blood has flowed through the posterior nares and into the stomach, often without attracting attention, and it may accumulate there in considerable quantities. If it be expelled immediately, the flow from the anterior or posterior nares will still be visible; if it be retained for a time until the epistaxis has ceased, some drops of blood or clots in the nose will suffice to indicate the source of the hemorrhage. It may be mentioned here that true hæmatemesis, like hæmoptysis, is entirely exceptional in childhood, and is scarcely ever met with except in some very rare cases of purpura.—*Gazette Médicale de Paris*, Sept. 20, 1879.

Albuminuria without Disease of the Kidneys.—In three anæmic, but otherwise healthy men, Edlefsen observed transitory albuminuria after severe bodily exertion. Leube has met with a relatively large number of such cases in soldiers, and he has sought to account for the albuminuria by the theory that muscular exertion causes an increased infiltration of albumen into the glomeruli. Edlefsen, however, does not accept this theory, but offers the following explanation of the phenomenon: In healthy men, according to Ranke, the muscles, when in active exertion, contain an increased quantity of blood, while at the same time the organs that are at rest contain a correspondingly smaller supply of blood. This difference in the blood-supply of the temporarily inactive organs must be still greater in anæmic persons, since the weakened muscular tissue of the heart is unable, in response to the increased demands made on it during bodily exertion, to force a sufficient supply of blood into the aorta, the result being that the internal organs receive still less blood than they would in a state of health; moreover, the blood, for the same reason, accumulates in the pulmonary and venous systems. Now, Runeberg found, after numerous experiments, that in the filtration of albuminous solutions through animal membrane, contrary to the formerly received opinion, the readiness with which the albumen passes into the filtrate increases in an inverse ratio to the diminution of the pressure exerted, or, when the filtration takes place into a fluid surrounding the filter, in a direct ratio to the increase of the pressure exerted from below, and from the sides against the filtering membrane. Applying these facts to the phenomenon in question, Edlefsen argues that albumen, which cannot pass through the vascular membrane of the glomeruli Malpighii under the normal condition of pressure, can pass through it when the pressure is diminished by bodily exertion, and more especially when the person is anæmic, because then the simultaneously overfilled veins increase by pressure on the urinary tubules and the fluid contained in them, the counter-pressure on the vascular membrane of the glomeruli, and thereby lessen the difference between the direct and the counter-pressure on the membrane.—*Berliner klin. Wochen.*, Sept. 22, 1879.

Simple Treatment vs. Antiseptic.—Dr. S. W. Gross requires strict cleanliness of instruments and dressings, but makes no use of carbolic acid. The instruments are not placed in antiseptic solution before the operation, nor is any attempt made to operate under the spray. In spite of this he claims as good results as the most perfect Listerization could produce.—*The Medical and Surgical Reporter*, Nov. 15, 1879.

Annual Meeting of the Training-School for Nurses.—The seventh annual meeting of the New York Training-School for Nurses was recently held at the Nurses' Home, opposite Bellevue Hospital. Mr. Wm. E. Dodge presided, and read the annual report of the managers. It showed that ninety nurses in all had been graduated since the establishment of the school in 1873. All the female patients in Bellevue Hospital, two male wards, the Sturges Pavilion, and the Lying-in Hospital, are nursed by pupils of the school. It now has every evidence of great prosperity.

After the reading of the report, Prof. Wm. M. Polk made a few remarks. Rev. Dr. Vincent then presented diplomas to a graduating class of twenty-three.

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE DOCTORS' BILLS.

In footing up the accounts of the old year, the practitioner of medicine learns many lessons from humanity. Fortunate is he if, in the estimate of the amount from bills receivable, he is able to realize the payment of anything like what he had been led to expect at the time of rendering the services. Willingness to pay the doctor is too often narrowed to that short period when the grateful patient can focus his pocket-book through his tears. In looking over the items in his day-book the physician can now recollect when was the favorable opportunity for receiving the fee, and how he missed it. Then any sum would not have been too great to pay him for the relief of pain or the actual saving of life. The doctor smiles now as he thinks of the pretensions of his grateful patient, and verifies afresh the forgetfulness of impetuous gratitude. The man who would then have no other attendant, now apparently feels so many obligations to the one who once saved his life, and whom now he owes, that he does not wish to trouble him any more. His readiness to pay at the time he thought, his wife was dying, or when his Harry was snatched from the jaws of death, has vanished into the shadowy uncertainties of a more convenient season, and he now comforts his conscience that, after all, it was nothing more than an ordinary service, and the doctor can wait for his money. It would not be proper, of course, for the doctor to consult his own convenience in answering the call. Suffering humanity demands immediate attendance. Sleep, meals, family obligations, and social recreation must be sacrificed to it, and the attendant must be content if, in the majority of cases he can earn for himself the reputation of being obliging to his patrons and attentive to his business.

When we descend from the lofty conceptions of professional obligations to the more material element of pecuniary remuneration, our poetry degenerates into the common prose of butcher and grocer bills. We are speaking now of the patients who ought to pay, but who do not; also, of men who believe, if they ever intend to remunerate the doctor at all, that his bill must be the last on their list. In one sense it is flattering to imagine that the medical profession is above the want of money, that it performs the duties of its high mission without being subject to the temptations of ordinary mortals. Viewed from other standpoints, the outlook is not encouraging to one who feels that he ought to live by his profession and be decently compensated for his work.

To return to the relations of gushing thankfulness to actual pay—what a sorry lesson does the man of experience learn in studying them! We almost imagine him to be cold hearted when, unmoved, he listens to the tearful acknowledgments of Jones, when Johnny is out of danger; to the outpouring of generous sentiments by Mrs. Black, when Cæsar Black, Esq., is again restored to health. Nor must the younger practitioner believe his older brother to be unthinking or profane if, when long after the bill is due, he hears him humming Rabelais' couplet concerning the sick devil who thought of becoming a monk.

When the young man's ledger is four or five years old, and he refreshes his memory concerning promises of patients unfulfilled, he too will become a trifle suspicious and learn to sympathize with his seniors. It has often been said, even by those who are disposed to pay every one else promptly, that physicians should never be in a hurry for their money. Really it would seem that the services of the doctor are placed even below those of the plumber in regard to the time and willingness for payment. On the other hand, it is well known that in the majority of cases the longer the bill is deferred after the thankful, appreciative, or tearful period, the less the chances are of getting it at all. And the physicians themselves are in a great measure to blame for this. They have educated the people to be tardy in their payments by showing an indifference as to the time when the accounts should be rendered. What they look upon as a small matter with themselves, is being considered as such by their patrons.

Then, again, so much medical service is rendered gratuitously, that it is hard to convince some people that it is worth anything. The system of "dead-heading" for clinical, dispensary, and hospital material has developed itself into a science which is now even better understood by the patient than by the doctor. When so much of this is going on, the patient with an elastic conscience can easily excuse himself from any obligation, pecuniary or otherwise, to his physician. The latter may consequently book what he pleases and collect what he can. It is fair to suppose, taking all the chances into account, that fully one-third of his visits will be found to have been made for naught; and if he collects the remainder of what is due him

within a reasonable period, he will be more fortunate than the majority of his brethren who are now settling up the accounts of the year.

THE CATTLE PLAGUE.

There are well-founded reports to the effect that the cattle plague is extending itself into Westchester County, and infecting a number of animals. In this city and in adjacent districts on Long Island, where the disease has been almost epidemic for the past year or two, very active measures have been resorted to by the State Commission to arrest its progress. Not only have efforts in this direction been successful, but the malady here has been virtually stamped out. The latter has been accomplished by killing the infected animals, it having been proven that there is no cure for the disease, and that it is highly infectious among horned cattle. The affection, as it appears in Westchester, is of a comparatively mild type, but the ultimate damages to the cattle in making them unfit for milking, unsuitable for food, and unsalable for breeding purposes, are virtually the same.

Pathologists have shown that the disease is peculiar, particularly in its pathological lesions. It may be considered, in a general way, as pneumonia complicated with pleurisy, but with the addition that portions of the inflamed lung become necrosed and actually separate themselves. This latter phenomenon is supposed to be due to the anatomical arrangement of the pleura, which has some peculiarities not possessed by the same membrane in the human subject. The lobules are not only very loosely connected with each other, but extending between them are folds of the serous membrane. The latter become inflamed, increase very much in thickness, and strangulate the lobules which they surround. The sloughing portion then becomes more or less globular in shape, and discolored, presenting a gross appearance, very much like a ball of manure. In the substance of this mass bronchial tubes and other elements of pulmonary tissue are found.

The disease is quite insidious in its approach, but when developed is easily diagnosticated, all the usual physical signs of pneumonia being present. The animal has a high temperature, quite frequent pulse, difficult breathing, and stands with legs well apart, as if such a position enabled him to breathe freer. The duration is generally many months, the symptoms gradually developing into those of cheesy pneumonia, and the animal dying very much emaciated. During the past winter the disease has been very thoroughly studied by several pathologists, and the conclusions reached regarding the character of the lesions, the general history of the disease, and the uselessness of treatment with the view of curing the disease, are founded on accurate scientific data.

NURSING AT GUY'S HOSPITAL.

It is intimated by the *Medical Press and Circular* that the foundations of that venerable institution, Guy's Hospital, are being shaken to the bottom through the recent conduct of its head-nurse. This head-nurse is a new acquisition, one who came from Leicester Hospital, clad in unassuming gray and endorsed by the best testimonials. Beneath the subdued apparel, however, and behind the spacious array of glowing testimonials, was concealed a spirit of arrogance and grinding tyranny, which have deeply aroused the subordinate nurses, have nearly paralyzed the executive management of the hospital, and have quite shocked our esteemed contemporary the *Medical Press and Circular*. The atrocious—one might almost say immoral—measures which this bad woman has inaugurated have been the requiring every nurse to dress in gray instead of black; requiring the nurses to change from one ward to another when directed by the matron, with certain other minor regulations in regard to salary and length of service. Many nurses have left on account of the hardships thus forced upon them, and the *Press* has taken up their cause.

The fact that the matron simply changed the uniform from black to gray is of itself hardly an indication that she may be so great a monster as is supposed; while the change of nurses from one ward to another is a practice to be commended in all hospitals. In this country, where we have the best trained nurses, it is a very satisfactory one. Many of the nurses, it is stated, have been in the same wards for fourteen or more years. Now, it may be safely stated that no female nurse can stay in one hospital ward for fourteen years without becoming something of a "Gamp." We think it likely that "Gampism" is quite as much to blame as the new matron in the present trouble at Guy's. We have great confidence, therefore, that the hospital will get safely out of the very tempestuous condition into which the novelty of an attempt at discipline seems to have thrown it.

SCHOOL HYGIENE.

A writer in a recent issue of the *Tribune* calls attention to the advantage of building school edifices in independent sections, so that, for instance, each room shall be complete in itself regarding its appointments of light, heat, and ventilation. The public schools—and, unfortunately, these are to be considered as the types of what is now called perfect school architecture—are constructed on the principle of a large auditorium divided into smaller rooms by temporary or permanent partitions, each being an inseparable part of the whole. Hence it often happens that, where one source of heat is relied upon, the temperature is so uneven as to make few comfort-

able. The scholars near the source of heat suffer on account of its intensity, and the windows are opened in self-defence, while those farthest off are suffering with the cold. He very justly urges in this connection that each class-room should have an independent supply, and should depend for ventilation upon other means than those afforded by open doors. The recent discussions on the unhealthfulness of our public schools has been productive of much good, and has brought about many improvements in heating and ventilation, but that much more is needed to make their habitation tolerable can easily be proven by any one who will take the time or trouble to inspect the buildings. We are aware that this will be considered as the old story, but our only regret is that there is still a necessity for repeating it.

HOSPITAL SUNDAY.

CERTAINLY those interested in the care of the sick poor, and the prosperity of our hospitals, have good reasons to be satisfied with the results of the contributions for hospital Saturday and Sunday, made last week. These were the first occasions of their kind in this country, and, as initiatory movements for general charity toward a most deserving class of sufferers, they were as successful as could have been expected. What has been done thus far is but the beginning of what will hereafter be accomplished in the way of donations to these worthy institutions. Americans are proverbially a generous people, and they need only to be assured that their alms are worthily bestowed to make any benevolent project successful. The press of this city took hold of the matter with earnestness, and by the free publication of notices, and by telling editorial articles, anticipated public opinion, endorsed the plan of contributions from the start, and prepared the people to give wisely and well.

No one was denied the opportunity of contributing. The receiving-boxes were placed along the routes of public travel, the yellow flag reminding all of the day and the occasion, and many were the silver bits which were dropped in. The churches were alive to the spirit of the day, and did their utmost to demonstrate a Samaritanism which was of the truest kind, because it was the most practical. Every giver, and they were very many, was made to feel that his gifts found the right channel, and that he was doing a work in keeping with that of Him who was always kind to the sick and the poor. As a matter of history, then, hospital Saturday and hospital Sunday are established institutions in this city. We can recommend other cities containing hospitals to go and "do likewise."

MEDICAL BARONETS.—London has five medical baronets: Sir W. Gull, Sir W. Jenner, Sir J. Paget, Sir T. Watson, and Sir G. Burroughs. Ireland is now clamoring for some.

Reviews and Notices of Books.

HOLDEN'S MANUAL OF THE DISSECTION OF THE HUMAN BODY. Edited by LUTHER HOLDEN, President of the Royal College of Surgeons of Ireland, etc., and JOHN LANGTON, F.R.C.S. Fourth edition. Philadelphia: Lindsay & Blakiston. 1879.

THE present edition comes to us thoroughly revised, and with some additions to the anatomy of the nervous system and the special senses. The arrangement of the work is of great practical utility to the student of anatomy, as it takes him by easy stages of dissection through the most complex constructions of the human body. By this means the surgical relations of parts are firmly impressed upon the mind, and the body is studied as a complex structure. The diagrammatic representations of distribution of arteries and nerves are of great service, impressing facts at a glance which could not be obtained from text descriptions, however lucid. Such associations, by means of illustrations, are everything compared with abstract memorizing, and need but to be mentioned to be appreciated.

The general character of this work is so well established, that it is unnecessary to say more than that the present edition is fully up to present requirements. The publishers have imported the English sheets, and of course present the work in a style which is simply matchless as regards clearness of print and character of illustration.

GUIDE TO THE EXAMINATION OF URINE; with Special Reference to the Diseases of the Urinary Apparatus. By PROF. K. B. HOFFMAN and DR R. ULTZMANN. From the Second Edition. Translated by T. BARTON BRUNE, A.M., M.D., Maryland University Hospital, and H. HOLBROOK CURTIS, Ph.B. New York: D. Appleton & Co. 1879.

THIS book is very neatly published by the Appletons, and is the same material that has already received a favorable notice in this journal for December 6, 1879, and published by Peter G. Thomson, of Cincinnati. The general appearance of the volume offered by the New York house is superior to that presented by the publishers in Cincinnati.

NOTES ON NORMAL HISTOLOGY. By T. MITCHELL PRUDDEN, M.D. Laboratory of the Alumni Association, College of Physicians and Surgeons, New York. New York: Trow's Printing and Bookbinding Co., 201-213 E. 12th Street. 1879.

DR. PRUDDEN has prepared these notes to aid the student in histological study, and has given him 128 pages of practical instruction, written in a clear and concise style. The introduction contains a description of the general methods for preserving tissues and preparing them for study. The body of the book consists of eighteen chapters, which are devoted to a histological outline of the structure of all the tissues in the human body, and a separate description of the method for their practical study. Students in histology and pathological anatomy are, for the most part, at a loss as to what book to purchase which will give them detailed directions, yet brief, regarding the successive steps necessary to be taken in order to properly prepare specimens for microscopical examination. In this little work, which its author so modestly places before the public, that knowledge regarding histological preparations can be obtained, and, being obtained, the student

stands upon a firm foundation upon which he can pursue pathological study. The book, for it is more than a pamphlet, should have an index, and should then be entitled, "A Practical Guide to the Study of Histology."

THE PHYSICIAN'S VISITING LIST FOR 1880. Twenty-ninth year. Philadelphia: Lindsay & Blakiston.

THIS familiar friend appears in its usual compact form—a *multum in parvo* to the general practitioner. Besides the customary calendar, poisons and antidotes, asphyxias, the metric system of weights and measures, and a table of doses, are among its contents. Among its blank leaves are appropriate headings for a visiting list, accounts, wants, obstetric and vaccination engagements, births, deaths, etc., etc.

A CLINICAL TREATISE ON THE DISEASES OF THE NERVOUS SYSTEM. By M. ROSENTHAL; with a Preface by Professor Charcot. Translated from the author's revised and enlarged edition, by L. PUTZEL, M.D. Vol. II. New York: Wm. Wood & Co. Library of Standard Medical Authors.

WE spoke quite extendedly of the merits of this book in reviewing the first volume. The second volume has the same qualities and methods of the first, but is somewhat more interesting to the reader, as it treats of the neuroses. These are divided into hysteria, spasmodic, cerebral, and spinal neuroses; neuroses associated with tremor and disorders of co-ordination; toxic neuroses, post-febrile nervous disorders, anæmic and reflex paralyses, and neuroses of the sexual organs.

In discussing these, Prof. Rosenthal is clear and systematic in his descriptions and just in his pathological views; but the American mind craves more of therapeutics than is generally given. Considerable is said about "water-cure," and a desirable addition would have been something definite about "climate cures" and "rest cures," which are becoming popular in American therapeutics.

Such things, however, are not, perhaps, very essential to a practical treatise that will go among the profession at large. The book, as a whole, is a sufficiently complete one, and ranks fully as high as any of the works on nervous diseases in the English language.

INFANT FEEDING AND ITS INFLUENCE ON LIFE. By C. H. F. ROUTH, M.D., etc. Third edition. New York: Wm. Wood & Co., 1879. Wood's Library of Standard Medical Authors.

DR. ROUTH'S work on Infant Feeding, first published in 1860, called attention at that time, in a way that had never been done before, to the terrible mortality among infants. He showed that one-fourth of all deaths was among children under one year of age, and, further, that one-half of these deaths were due to improper food or unhygienic surroundings.

With the stimulus of such an evil before him, and with an earnest enthusiasm in his subject, it is not strange that a most useful and effective book was produced. The present edition has received many additions which show that the question of infant feeding has been receiving much more care, both from public authorities and scientific investigators, since he first wrote. It is somewhat appalling, however, to see that there is as yet no great improvement in the total average of the mortality statistics. It seems that the pressure and complexities of a growing civilization keep pace with the efforts of sanitarians. Illegitimacy, infanticide, and maternal neglect or indifference, are evils which sanitary science can only try to counterbalance; it cannot strike at their root.

Dr. Routh divides his book into four parts, in which he considers: 1st, the causes of mortality and viability of infants; 2d, the subject of wet-nursing in its physiological as well as social relations; 3d, the general principles and practice of alimentation; 4th, the symptoms and treatment, dietetic, hygienic, and medical, of the diseases of defective assimilation.

The statement, quoted from Quetelet, that an infant just born has less chance of living a year than a man ninety years old, furnishes an impressive text to the subject of the conditions that make infant life so precarious. These are thoroughly gone over in Part I.

In discussing the subject of wet-nurses the author contends very strongly against the too prevalent habit of employing fallen women as such. Part III. contains a full discussion of the qualities and relative value of different kinds of milk, as well as of the various infant foods, artificial and natural.

Part IV. covers the question of defective assimilation more fully than in ordinary text-books upon diseases of children.

The book, as a whole, treats of the hygiene rather than of the diseases of infancy. As such it will be found a most valuable supplement to the standard text-books.

The author chills one's enthusiasm somewhat at the outset, by beginning his first chapter with a quotation from Tupper; but we find no further evidence of the influence of that favorite poet, and conclude that the quotation was but a passing vagary. It would certainly be distressing to find a poetical undercurrent of Tupperian philosophy running through a pædological treatise.

ANNUAL REPORT OF THE NEW YORK METEOROLOGICAL OBSERVATORY FOR 1878. By DANIEL DRAPER, Director, Central Park, New York.

THIS report contains abstracts from previous reports, showing some of the work which the Observatory has accomplished, descriptions of new instruments, a plea for a new observatory, and tables for the year 1878.

Much useful work is shown to be done at the Observatory, and the results of the observations taken there are in very general demand.

AMERICAN HEALTH PRIMERS. THE MOUTH AND THE TEETH. By J. W. WHITE, M.D., etc.

DR. WHITE, editor of the *Dental Cosmos*, has gone over his subject thoroughly, and made a very useful little book. It has not, however, much of interest to medical readers.

THIRD REPORT OF THE BOARD OF HEALTH AT NASHVILLE, TENN., for the two years ending Dec. 31, 1878.

THE Nashville Board of Health is a young organization, but it shows itself capable of excellent work. In their present report of 325 pages, there are twelve separate articles upon various topics. They evince much study and labor, and embody a large amount of useful information. Yellow fever is treated of in only one article, which is something of a relief to the Northern reader at least. The other papers cover the subjects of water-supply, school hygiene, sanitary geology, trees and shrubbery, mortuary statistics, etc.

The President of the Board is J. D. Plunket, M.D.; Secretary, J. B. W. Nowlin, M.D. The board has

one health officer two sanitary inspectors, and there is a third official position which in the unique nomenclature of the report is called 'Scavenger Boss.'"

CLINICAL LECTURES ON DISEASES OF THE URINARY ORGANS. Delivered at University College Hospital By SIR HENRY THOMPSON, Surgeon to H. M. the King of the Belgians, Emeritus Professor of Clinical Surgery, and Consulting Surgeon to University College Hospital. Fifth edition. Philadelphia: Lindsay & Blakiston. 1879.

It rarely falls to the lot of a medical writer to see the fifth edition of his work called for within eleven years, yet such is the fact with the volume we are called upon to notice. Sir Henry Thompson's works are so well known, and this one, especially in its former editions, has been so generally consulted by surgeons in this country, that nothing new remains to be noticed except in regard to two subjects, namely, stricture and lithotrity. In his second lecture "On some Points Relating to the Structure and Function of the Male Urethra," he throws the weight of his authority against "the too mechanical method of treating urethral disease," and says "that it originates in a want of consideration which appears very widely to exist as to the nature and functions of the urethra;" and again, "I note an increasing tendency to discover stricture, and especially to undertake a considerable amount of operative treatment for stricture of the slightest kind, and sometimes in cases where, in my opinion, no strictures have existed. There seems now to be a school which has determined for itself a very high standard of potency in what we hear called the 'urethral tube,' and which is accordingly said to have, or, if it hasn't, that it ought to have, a calibre of so many parts, and very large parts, of an inch, or so many millimetres, as the case may be. Instruments of astounding magnitude are produced, and if one of them cannot be passed, with an ease which contents the operator, through the whole of the urethra, the unlucky patient is pronounced to be the subject of stricture."

It seems hard for him to give his direct approval to the method of lithotrity advocated by Dr. Bigelow, of Boston, and now adopted by most urethral surgeons in this country. He says: "Of this proposal I feel compelled to say that, although the results may often be successful, it is to be feared that the result must sometimes be disastrous." The same may be said of any operation for stone, and a few lines lower down he says: "I am bound to say that my own system has for a long time past been gradually inclining to the practice of crushing more calculus at a setting and removing more débris by the aspirator than I formerly did."

There seems throughout the book to be almost an absence of the mention of anything American. Good work has been done by surgeons in this country in this department, which should have received at least some notice even in a course of "clinical lectures," which our author expresses the gratification of finding employed as a text-book in most of the medical schools of Europe, and translated for that purpose into the French, German, Italian, Spanish, and Russian languages.

The volume is well printed, and will certainly be sought for by those who pay any attention to diseases of the urinary organs.

THE LATE PROF. J. AITKEN MEIGS.—The students of the Jefferson Medical College have presented a portrait of the late Prof. Meigs to the trustees of that institution.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, November 28, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

THE MICROSCOPICAL COMMITTEE reported that the tumor of the testicle removed by Dr. Lente, and exhibited at the meeting of the Society, Oct. 22, 1879, was a cystic chondro-sarcoma, and that the tumors of the lungs and pleura presented by Dr Van Gieson were also sarcomatous, containing a trace of bone.

TUMOR OF PAROTID—ECCHONDROSIS OF INTEGUMENT OF NECK AND CHEST.

DR. A. C. POST exhibited a tumor removed by him from the parotid region, with the following history:

John S——, aged 63 years, applied to me a few weeks ago, with a hard tumor on the left side of the neck, having its upper extremity between the ramus of the jaw and the mastoid process of the temporal bone, and extending down the neck about seven centimetres. It is overlapped by the sterno-cleido-mastoideus muscle. The tumor is hard, and its motions are very limited. The patient first noticed it about four months ago. It began to be painful about two months ago, and the pain had gradually increased, so as to occasion great distress. His general health had suffered from continual pain and loss of rest.

November 17, 1879. I undertook the excision of the tumor. I made a free incision over its surface, from its upper to its lower end, dividing the skin, the two layers of the superficial fascia, including the platysma myoides muscle, and the deep cervical fascia. In order to expose the tumor, it was necessary also to divide the overlapping fibres of the sterno-cleido-mastoideus, which were closely adherent to the tumor, and seemed to form a part of its substance. The dissection was continued along the posterior margin of the tumor, which was found to be closely adherent to the adjacent parts. In order to expose the tumor more freely, a transverse incision was made across the middle of the longitudinal one. In prosecuting the dissection, most of the external branches of the cervical plexus of nerves were divided. The phrenic nerve was exposed to view, but was left intact. Near the upper part of the tumor, a large nerve was seen entering its substance, coming from between the styloid and mastoid processes, and believed to be the facial nerve. It was drawn down with a blunt hook and divided. The tumor was found to be so closely adherent to the great vessels, that it did not appear possible to complete the dissection without injury to the vessels. The pneumogastric nerve was brought into view, as was also the posterior part of the sheath of the vessels, the pulsation of the carotid being quite distinct. Under these circumstances, it was deemed expedient to divide the tumor, removing its lower part, including three-fourths of its substance, and leaving the upper part *in situ*. The wound was thoroughly washed with a carbolic lotion, 1 to 40, a tent for drainage was introduced throughout its whole length, and the edges of the wound were brought together with fine sutures. Cloths wet with the carbolic lotion were applied over the surface.

Nov. 19th.—The wound looks well; union by the first intention seems to have taken place throughout

a large part of its extent. Most of the sutures were removed, and the drainage-tent was taken out. The wound was syringed out with the carbolic lotion. As the patient was troubled with nausea and anorexia, he was directed to use nutritious enemata of milk and beef-tea alternately, at intervals of three hours.

There was no facial distortion, and the patient retained the power of closing his eyelids.

Nov. 22d.—A low degree of inflammation has spread from the lower part of the wound, over the clavicle, upon the upper part of the thorax. The lower part of the wound has reopened, and there is a discharge of offensive matter, with masses of gangrenous cellular tissue. On making an incision over the upper part of the chest, there was a further discharge of foul matter, with gangrene of the cellular tissue.

Nov. 24th.—The disintegration of the cellular tissue has also extended behind the clavicle into the upper part of the left pleural cavity, and there is a gurgling in that region during the acts of inspiration and expiration.

Nov. 25th.—The patient died rather suddenly, while sitting on a sofa in a room adjoining that in which he slept. He had from the time of the operation shown an aversion to remaining in a recumbent posture. Every day he had been out of his bed some part of the time, and had walked into an adjoining room.

No opportunity was afforded for an autopsy.

Dr. Post also exhibited a large mass of clippings from a diseased tibia, with the following history:

Fred. Lenckel, born in Pennsylvania, aged 25 years, admitted into the Presbyterian Hospital, Nov. 13, 1879. Nine years ago he began to limp on his right foot, with some pain and swelling at the upper part of the leg, near the insertion of the ligamentum patellæ. There was an increase of the pain and swelling during a period of three years, when the leg became flexed upon the thigh, and he applied to a surgeon, who etherized him and made an ineffectual attempt to straighten the limb. Six months later an opening was made, giving issue to a purulent discharge, and some small pieces of bone came away. The opening has never closed. When the patient was admitted into the hospital, there was found a ragged opening three centimetres in diameter, leading to an excavation in the bone. The opening was more than twelve centimetres below the upper border of the patella. A probe could be passed upward and backward six centimetres in the interior of the tibia, toward its articular extremity. From this opening there was an abundant discharge of pus, having an offensive odor. The patient presented a pale and anæmic appearance, but his general health was not very seriously impaired.

On the 15th November, two days after his admission, the patient was etherized, an Esmarch's bandage was applied, and I performed the following operation: I made a free crucial incision down to the bone, detaching the periosteum for some distance around the ulcerated opening, and then with chisels and gouges removed small pieces of softened bone, infiltrated with pus and with cheesy matter, making an excavation in the bone about as large as a goose's egg, being nearly twelve centimetres in the longitudinal axis of the limb, and nine centimetres in a transverse direction. The upper part of the excavation was separated from the knee-joint by a very thin shell of sound bone. The disease extended beyond the lower part of the excavation, but as the patient bore the anæsthetic badly, threatening symptoms of asphyxia having occurred, and as the operation had been quite protracted, it was deemed best to defer to a future day the removal of the remaining portion of diseased bone. On removing the Esmarch's bandage, there was a very copious oozing of blood from the whole surface of the bony excavation. To arrest this flow of blood, I stuffed the cavity with sponges which had been soaked in a carbolic lotion one to forty, and had been thoroughly squeezed, and applied a roller-bandage tightly from the toes up to the knee. The patient was then taken to his bed, and the limb elevated above the level of his body. After the lapse of four hours, the bandage and the sponges were removed, and as there was a slight renewal of the oozing of blood, the surface was carefully sponged, and a thorough application of liquor ferri persulphat. was made. This completely arrested the flow of blood. The cavity was then lightly filled with lint moistened with the carbolic lotion, and a roller-bandage was loosely applied.

Dr. Amidon thought that probably the exposure of the sympathetic was the cause of the sloughing.

Dr. Post did not believe that the nerve had been exposed.

ONE KIDNEY.

Dr. Stimson exhibited a specimen of almost complete absence of one kidney, and of malformation of the vagina. The subject was found in the dead-house of Bellevue, and no diagnosis had been made during life. The urine found in the bladder was free of albumen.

On opening the abdominal cavity, the absence of the left kidney was noticed. In its place was a calculous mass one and a half inches in length, and of the general shape of the kidney. The ureter of that side existed for about six inches, and ran from the bladder upward in a rather tortuous course, being lost in the neighborhood of the promontory of the sacrum. There was no left renal artery, but a small left renal vein. The bladder contained a sacculus as large as the thumb. The urethra was normal. The vagina was closed an inch below the os uteri by a diaphragmatic septum which contained two openings. Above the septum the vagina was large and roomy. The individual was apparently a virgin. There was no kidney structure found in the stony body occupying its place.

The right kidney, which had done the work for seventy-five years, weighed six ounces and a half, and had an adherent capsule. The left ventricle of the heart was somewhat hypertrophied; the mitral orifice was somewhat contracted, and there was considerable atheroma deposited in the aorta.

THE ORIGIN OF EPITHELIOMA.

Dr. Amidon presented a microscopical specimen of indurated tissue removed from the margin of an old ulcer, which seemed at one time to be degenerating into epithelial cancer. The subject was an old soldier who had been wounded during the late war, and the ulcer had existed ever since that time. It was finally healed, however, by the application of an ointment composed of salicylic acid and balsam Peru, and the use of the elastic bandage. At the time when the ulceration presented its most suspicious appearance the specimen was removed.

On microscopical examination it showed a great proliferation of cell-element, and a marked hypertrophy of the mucous, epithelial, and papillary layers of the skin; but in no place were the characteristic cell-nests to be found.

Dr Arnold took occasion to refer to the connection that is said to obtain between degeneration of the epithelioma and destruction of the cells of the part. There was often a proliferation of the cells of the rete mucosum and at the base of the papilla, that the vascular supply was cut off. The upper portions of the papilla in their turn became hypertrophied, until they eventually came in contact with each other, shutting in the cell growth below, where cell nests were eventually.

In answer to a question from Dr Post, he stated that warts were generally present a long while from this degeneration, from the fact that the natural pressure to them prevented the growing of the cells below ment and the consequent formation of cell nests. When these fissures became close there was great danger of cancerous degeneration.

Dr. Simmons remarked that such a theory did not hold good in all cases, as sometimes the proliferation of cell element took place downward, and the section of the disease very often presented an uneven and ragged outline below the base of the papillæ.

Dr. Kerrs referred to a case of chronic ulcer, which was said by a competent microscopist to have degenerated into epithelioma, but which was cured by strapping. In that instance the usual cell-nests were found.

The Society then adjourned.

WEST CHICAGO MEDICAL SOCIETY.

Regular Meeting, Nov. 10, 1879.

TRAUMATIC TETANUS — TWO RECOVERIES.

Dr. J. H. Salisbury reported two cases, one of which recovered.

The first was a lad of 16 years of age, who had been previously healthy except that he had experienced small-pox in childhood. One brother was said to have died of tetanus. He received a wound on the face by the kick of a horse; he did not lose consciousness, and was able to walk home. The wound was closed by Dr. Lee, with needle sutures, and dressed with carbolic acid lotions. On the third day the needles were removed. The case did well till the fifth day, when slight stiffness of the muscles of the jaws announced the presence of tetanus. This symptom grew gradually worse for three or four days, during which time dysphagia gradually came on. The next day (the fifth of the trismus) he was admitted to the County Hospital. Then it was found he had difficulty in speaking; on every attempt the muscles of the mouth were thrown into spasm, "the features assuming at times a true risus sardonicus." The front teeth could be separated only a centimetre; the dysphagia was severe, owing to spasm of the muscles of deglutition.

There was no fever; the wound was in good condition. He was given a cathartic at once, and was prescribed forty-five grains of bromide of potassium, and fifteen of chloral every four hours.

He continued in much the same condition, having frequently slight spasms affecting the muscles of the neck and mouth, while there was a certain stiffness of these muscles constantly present, until the fourteenth day, when a paroxysm occurred to which there was spasm of the respiratory muscles and closure of the mouth, insomuch that the patient became distinctly cyanosed, and slight opisthotonus also took place. In a few hours another similar paroxysm occurred, after which he was more quiet for a day and a half.

Then occurred a spasm more severe than any of those described. Now a dose of bromide of potassium of two drachms was given, followed by half-drachm doses every two hours. Next day another profound paroxysm occurred. On this day, the thirteenth of the tetanus, the administration of calabar bean by hypodermic injection was begun, a quarter grain of the extract being exhibited every two hours. Meanwhile the chloral and bromide were continued. From the time the paroxysms ceased. The calabar bean was used until the circulation showed signs of depression, yet the pupils were not contracted.

There was at no time any fever. The wound healed kindly, and the patient was discharged well three and a half weeks from his admission.

The second case was of a man who had received a crushing injury of the foot without breaking the skin. Hot water dressings were applied to the injury. In five days symptoms of tetanus appeared in the jaw, and he was given bromide of potassium and chloral. Thirty-six hours afterward he was admitted to the hospital, when he was immediately put upon the treatment of bromide of potassium and chloral, thirty and fifteen grains respectively every two hours, and every hour a hypodermic injection of one-eighth grain of extract of calabar bean. A tablespoonful of whiskey was given every hour. Paroxysms of muscular spasm with some opisthotonus occurred every half hour, when the patient was quiet. A trifling disturbance would at any time precipitate a spasm.

Two days after admission, difficulty in swallowing appeared. Seven hours afterward a severe paroxysm occurred, followed by rapid breathing, rapid and weak pulse, unconsciousness, and in an hour the man died without a struggle.

There were, up to the moment of death, tonic spasms of the muscles, which had shown no relaxation from the effect of the medicine given; the pupils were not contracted to any extent during the sickness.

Dr. S. thought the manner of death was curious, and queried whether it could have been due to the calabar bean.

Dr. Henry Van Buren next reported a case of tetanus with recovery.

The patient was a man 23 years old, a laborer, with good previous health. He received a wound of the ball of the left thumb by a circular saw in motion, September 27th. The wound was small, but deeply torn; the bone was not injured. The wound was first dressed by another surgeon with some compound resembling pitch, which caused pain; this dressing was removed by Dr. Van B., and replaced by simple adhesive plaster, and the patient went to work feeling comfortable. In two or three days the dressings were removed. In six days from the injury the patient presented himself, complaining that he could not open his mouth. The next day more positive symptoms of tetanus were present. "Simultaneous spasms of the whole body" occurred frequently. The jaws became fixed, so that an opening between the incisors could be made of only one-eighth inch.

The muscles most involved in rigidity were the masticatory, those of the neck, chest, and the flexors of the extremities. Among those most involved in the spasms were the muscles of the face, so that extreme opisthotonos was produced. Photophobia was present throughout, and bright light would increase the frequency and severity of the spasms; and unexpected sound had the same effect.

The spasms became so frequent by the second day, that they occurred every thirty minutes, and it was not till the seventh day they became less frequent;

they did not entirely cease till the fourth week. Great pain was experienced in the paroxysms.

There was little fever. The pulse was about 100 most of the time. The mind wandered at times, and the sleep was of course broken by the frequency of the paroxysms. The face was flushed. At the end of the fourth week, mastication was free for the first time.

The treatment consisted of extract of calabar bean, one-half grain every two hours, for two days, with doses of bromide of potassium and chloral, fifteen grains each, every two hours, alternating with the extract. On the third day the extract was given every three hours, and morphine was added to the treatment as pain seemed to indicate, as much as half a grain being given hypodermically at a dose. Now the spasms became less, both in frequency and violence, and contraction of the pupils came on for the first time. During the fourth and fifth days the chloral was omitted, and the extract of calabar bean given every four hours.

On the seventh day (at the suggestion of Dr. Bridge) the morphine was omitted and the calabar bean given every four hours; at the end of forty-eight hours the pupils were slightly contracted—then the morphine was resumed. This treatment was kept up till convalescence was established. Linseed-meal poultices were assiduously applied to the wound.

The patient was present at the meeting, and was exhibited.

His limbs, especially the lower, were stiff, and their motions apparently abbreviated. On rising to walk, he found great difficulty in raising his feet free from the floor, and in moving forward dragged or shuffled them forward. No pain was experienced, and after an effort of a few minutes his gait would become more free. Sensation was perfect.

The head was slightly projected forward.

Dr. H. M. Lyman, in discussing the reports, said tetanus was due to an inflammation of nerves propagated from a wound at the periphery to the nerve centres. The treatment that offered the most hope was such as would prevent the paroxysms of muscular spasm while it lessened the force of inflammatory action at the centres.

Dr. Millard reported verbally a case of tetanus in a child two and a half years old, resulting fatally. The treatment was with chloral and bromide of potassium.

Dr. O. J. Price also verbally reported a case of tetanus in a boy of fifteen, who had received a wound of the scalp. On the tenth day trismus appeared, followed by well-marked tetanus. The spasms occurred every few minutes. The treatment was with chloral and calabar bean. In six days the patient died. The temperature before death reached 103° F.

Dr. Chas. D. Camp read the history of a case of what was, in the absence of any post-mortem examination, supposed to be abscess of the liver, breaking into the lungs and resulting fatally.

Hard Chemical Names.—Dr. C. writes: "It is germane to your recent item in relation to present chemical nomenclature to say that the *Berliner Chemische Gesellschaft* of October 13th last contains a note on the production of tetramethyldiamidodiphenylmethan and naphthyldimethylamidophenylsulphon. If the latter is heated with nitric acid, pertanitrodimethylaniline and nitronaphthalinesulphite are produced."

Correspondence.

CONCERNING SO-CALLED PATENTED ARTICLES.

To the Editor of the Medical Record.

Dear Sir:—In his reply, "Pharmacopœia," although "infinitely obliged" to the writer "for his construction about patented and trade-marked articles," is still surprisingly deficient in understanding the real point at issue. While he concedes that the articles named in his former communication were erroneously classed by him as (to be) patented, and admits that there is *no worthless or dangerous preparation in the market which is patented*, he cannot consent altogether to leave patented out of connection with trade-marks, for he is tempted to say: "A trade-mark is a partial patent at least," etc. Now, sir, permit me to state that this is out of reason entirely; for such a thing as a "partial patent" does not exist in any case—it cannot exist! "Partial patent" is a new word, coined by "Pharmacopœia," which shows evidently that he has not yet entirely mastered the subject, simple and plain as it is. In connection with this, I should not omit to mention that in his reply "Pharmacopœia," to my amazement, is led to use the word "quibble." This is hardly in keeping with the avowed spirit of his communication. Further, being ready to "proceed to the more important and serious side of the question," with all this seriousness and importance he really parades again his spiritual offspring, the "partial patent." The remainder of his answer contains remarks which do not belong to our controversy, and therefore I leave them unnoticed. I never, in a discussion, take up a new point before the original issue is satisfactorily settled. That "Pharmacopœia" has not arrived at that point needs not to be further proven.

Yours respectfully,

Julius Fehr, M.D.

Hoboken, N. J., Dec. 18, 1879.

THAT ODD CENT IN THE YELLOW FEVER FUND.

To the Editor of The Medical Record.

Sir:—The enormous or rather curious sum of one cent, has appeared in every report of the Yellow Fever Fund of the Medical Society of the County of New York, to the no little merriment of the members. It was thus obtained: The Medical Society of the State of South Carolina sent a check for $443.45, and the mayor of New York gave another for $179.56. All other sums received and paid out were in dollars, with no cents; hence that one cent, which was obtained from the addition of 45 cents to 56 cents, remains, and probably will remain to the end.

All the beneficiaries of the Society were heard from shortly before Christmas, and all were remembered; none are suffering at present; while most of the 26 widows and 51 orphans whom we have helped, are now self-supporting. The committee still has $1,073.01, from which $25 per month is being sent regularly to four of the beneficiaries; while we have three other worthy widows, with eleven children, whom we are striving to help with larger sums.

When the last dollar is distributed, I hope to be allowed to retain that *one cent* in remembrance of the fund.

J. C. Peters, Chairman.

New Instruments.

A NEW INSTRUMENT FOR THE REPAIR OF LACERATION OF THE CERVIX UTERI.

By ELY VAN DE WARKER, M.D.,

SYRACUSE, N. Y.

The importance and usefulness of repair operations upon the vaginal portion of the cervix uteri is interfered with by some mechanical difficulties in its performance, which have confined the operation to the hands of specialists. The theory of the operation is a very simple one, the instruments needed are few and inexpensive; no minute anatomical knowledge is involved in its performance, and yet, like the operation for vesico-vaginal fistula, it has never been popularized. The reason is that the operation is mechanically difficult. The difficulty attends but one step of the operation: the passage of the sutures accurately at the place needed. The denudation of the lacerated edges usually presents but few obstacles to a speedy completion of the operation.

In the case of a soft and yielding cervix the introduction of the sutures is comparatively easy and speedy, the only delay arising from the necessity of keeping the blood well sponged away in order to see where to plant the needle, and the point toward which to urge it. But, in case of an hypertrophied and indurated vaginal portion, the introduction of the sutures is sometimes exceedingly difficult. Especially is this the case with the first stitch, which, if placed correctly, is introduced so far back that the needle, in passing, is just seen at the bottom of the laceration, and in order that the needle may emerge at a point opposite that of its entrance, it must describe part of a circle through the indurated tissues. This is because needles are made curved, instead of straight, as they ought to be, in order to pass easily through tissue so dense as is found under these circumstances.

By the use of the little instrument here figured all these annoyances disappear. I call it the suture forceps. It consists of two parts, the male blade, *b*, Fig. 1, which carries a straight needle 2.4 cm. long, secured at *d* by a set screw, and the female blade, *a*, secured to the male blade by an open slot at the joint *c*, like the lock of an obstetrical forceps. At *c* is another slot, through which the needle passes. Both these slots are better shown at *a* and *b*, Fig. 2, of the female blade. The opposing surface of the female blade has two blunt spurs at *e* for the purpose of preventing slipping while the blades are closing.

The most novel feature of the instrument is the eye of the needle, which is placed in the point, like that of a sewing machine needle. As it would be exceedingly difficult to arm this needle after it has passed through the tissues, obscured by blood, with either wire or thread, it is provided with what I may call a self threading device. The eye of the needle is placed at a right angle to the blades of the forceps, at the side further from the operator—in the direction *c*, Fig. 1—a delicate slot is cut through the side of the needle into the eye further from the point. After the needle is passed through the cervix, the operator has but to make a loop in the wire or thread, throw it over the point of the needle and draw it upward; as it moves along the needle it is caught in the slot and falls into the eye. The use of the instrument is very simple. The two blades are lying separate by the operator. He picks up the male blade, puts the point of the needle at the place he wishes to make a suture, and then taking the female blade, places the distal end on the opposite side of the cervix; its slot is then passed under the button at the joint in the male blade and the instrument locked. The forceps is now held lightly in the grasp of the left hand, and with a tenaculum in the right hand, that portion of the cervix opposite to that held by the point of the needle, is drawn down parallel to it, at which moment the forceps is closed. The loop is now passed over the point of the needle and drawn along its shaft until it drops into the slot. The forceps is unlocked, the slot in the distal end at *b*, Fig. 2, is carried away from the end of the needle, so that the wire loop—if wire is used—is both compressed and carried into the eye of the needle at the same time. The eye is thus armed without being seen by the operator.

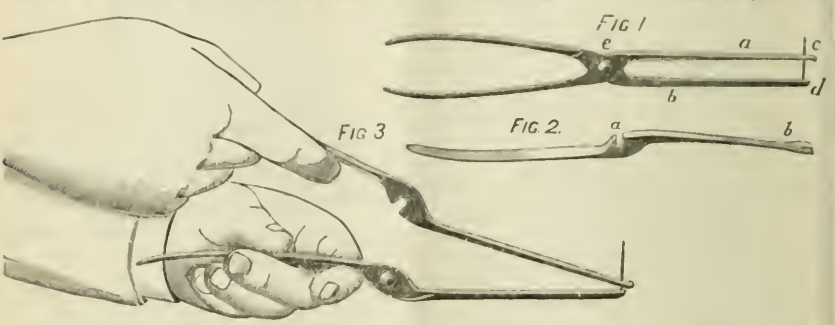


Fig. 3 shows the further use of the two blades. The slot in the distal end of the female blade is passed along the male blade till it is stopped by the needle, and thus acts as a counter-force while the needle is being withdrawn from the tissues.

The speed with which work may be done with it is remarkable, contrasted with the old method.

One word as to the shape of the needle. I have heard very experienced gynecologists remark that the suture material ought to fill up the kerf of the needle. This depends entirely upon the point of the needle. If it is lance-shaped and sharp it will cut its way and consequently bleed; if, however, its point is blunt and rounded, or flattened, it will tear its

way, spreading the tissues as it passes through, and allowing them to recoil, as it were, upon the wire directly it has passed. This fact is taken advantage of in the construction of the suture forceps.

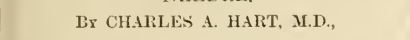
Mr. John H. Christman, of Syracuse, has my model, and can reproduce the instrument at a small cost for those who wish to try it.

A NEW ASPIRATING AND EXPLORING NEEDLE.

By CHARLES A. HART, M.D.,

PLAINFIELD, N. J.

For a number of years I have been in the habit of using an ordinary hypodermic needle and syringe for the explorations of diseased joints and tumors of various parts of the body, thought to contain fluids, and also to empty the pleural cavities of collections of serum, but having had unpleasant results follow its use in some cases from the cutting edge of the needle, I devised a needle fitted to the ordinary hypo-



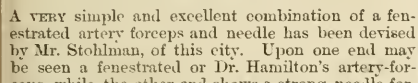
dermic syringe, *round-pointed*, with a small fenestrum on the side a short distance from the point. In exploring a joint or tumor, the needle is attached to the syringe and introduced into the growth or part. A withdrawal of the piston will fill the barrel of the instrument with the desired fluid. Upon the removal of the needle, the minute point of puncture closes at once.

I have explored an immense aneurism of the abdominal aorta with the above-described instrument, in which a doubt existed as to the nature of the growth. The examination determined the diagnosis. No bleeding occurred from the point of puncture. At the autopsy, two weeks after the exploration, there was no sign of the point of puncture; no leakage occurred from the sac, nor were there any signs of local peritonitis. From the above test, I should feel no hesitancy in exploring *any* of the cavities of the body to relieve pressure or confirm a diagnosis.

The instrument is manufactured by Mr. William Ford, of Caswell, Hazard & Co., New York City.

A NEEDLE- AND ARTERY-FORCEPS COMBINED.

A very simple and excellent combination of a fenestrated artery forceps and needle has been devised by Mr. Stohlman, of this city. Upon one end may be seen a fenestrated or Dr. Hamilton's artery-forceps, while the other end shows a strong needle-forceps, similar to the point of Dr. Sands' or Dr. Prout's instrument. The jaws, inlaid with soft metal,



grasp the needle with great power without danger of breaking its eye or injuring its point when extracting the same. The instrument takes up no more room in the pocket-case than the ordinary artery-forceps, nor is the expense materially increased. One of the principal advantages will be, that two such very useful instruments, combined in one, will be always at hand and convenient.

THE CUTIPUNCTOR.

By SAMUEL SHERWELL, M.D.,

BROOKLYN, N. Y.,

LECTURER ON SKIN DISEASES, LONG ISLAND COLLEGE HOSPITAL, VISITING PHYSICIAN TO THE BROOKLYN CITY HOSPITAL, ETC.

The subjoined woodcut is a representation of an instrument designed by myself for the cure of cutaneous nævi, and for which the name of cutipunctor has been suggested. It is used, as the name would indicate, for puncturing the skin in cases of cutaneous nævi, and simultaneous introduction into that tissue of some fluid that will more effectually plug up the divided and lacerated capillaries, and cause adhesive inflammation in them.

A similar, but much more rudely made instrument has been used by me hitherto with success in these cases; and I have read papers and shown cases on the subject before both the New York and American Dermatological Societies, which papers have been published in both cases in the *Archives of Dermatology*, vols. iii. and iv., pp. 214, 354.

It is sufficient here to say, in brief, that the modus operandi is as follows: The patient being anæsthetized, or not (seldom necessary), the *business end* of the instrument can be graduated to any degree of depth of penetration necessary, by the screw-cap, the bundle of needles being dipped each time into a sponge saturated with the fluid thought best (carbolic acid, 80 per cent., chromic acid, 20 per cent., the solutions mostly used by author), the instrument is kept with firm pressure on the part, and, the spring being let go, the needles penetrate, carrying a modicum of the solution with them. The needles are the ordinary straight saddler's needle, of small size, but grooved far down on each of the three sides.

As many piercings may be allowed as shall be judged necessary. It is well to be cautious at the first operation, as skin differs markedly in tolerance in different individuals; the extent of nævus must also be taken into consideration. As may be imagined, the difficulty of cure and length of time necessary is in inverse ratio usually to size. I think a spot about a square inch could be removed, or rather caused to disappear, certainly with one or two operations.

The after-treatment is believed to be equally important, when, after sufficient use of the instrument, the bleeding and oozing of bloody serum is stopped, as it may be very soon by the firm pressure of linen cloth, or pad of blotting-paper, the part cleansed and wiped off quickly with a little alcohol; a moderately concentrated solution of collodion is applied in successive coats—say two or three—over the part operated upon, with a view to compression of the tissues, thus effecting, possibly, a comparative ligation of the wounded capillaries, and their occlusion from adhesion, etc.

I have used the instrument several times since I received it, about a fortnight since, in cases of retained placenta and abscess, and can recommend it highly. The case is for sale by the makers. It would be superfluous to say that it is well made, easily cleaned, and efficient.

I have been using the foregoing method to all parturients since 1874, with marked success in many cases, entire in others, and believe that in the number of needles used, their arrangement and modification, and their distance from each other; also in the employment of medical escharotics in this manner, and the after application of collodion, are original, certainly the last two, as have not for the purpose indicated, applied.

I have here to use all the word "tattooing," when writing on this subject, without, of course, meaning the word in its exact application as regards tattooing-staining, but as being best suited to convey the idea of operation.

151 Roman Street.

Medical Items and News.

Death from Chloroform.—We are much indebted to Mr H. H. Robinson, House-Surgeon of the General Infirmary, Hull, for the report of a death from chloroform which occurred in that institution last week. The facts of the case are, briefly, as follows: The patient, a powerfully built country laborer, was admitted under Mr Craven with a disorganized eyeball, the result of old injury. He came to the hospital for the purpose of having the eye removed, and, on November 21st, this was done by Mr Craven. Chloroform was administered on a towel by Mr. W. H. Smith, one of the assistant house-surgeons, and the patient was quickly under its influence, without a struggle. The operation was then proceeded with and completed in something less than five minutes, the effect of the chloroform being kept up during part of that time. When on the point of dressing the eye, the patient suddenly ceased breathing, and his face became livid. The tongue was at once pulled forward, and artificial respiration resorted to. Galvanism and nitrite of amyl were also tried, but unfortunately without success. So far as can be judged, the patient had not inhaled any of the vapor for three or four minutes previous to the respiration ceasing. Mr Smith states that when the administration was stopped the pulse was a fairly good one. *Post-mortem*, beyond intense congestion of the kidneys, nothing was discovered to throw any light on the case, the heart and lungs being apparently perfectly healthy. Mr. Robinson says that chloroform has been administered daily in this hospital for many years, and only once previously, twenty-five years ago, with fatal effects.—*British Med. Jour.*

The so-called Pneumonia following Croup.—Our attention has been called to an ambiguity of expression in the report of Dr. Ripley's remarks at a recent meeting of the New York Pathological Society, which was due to the omission of a period, and the consequent joining of two distinct sentences. The clause to which we refer should read thus—page 536, line 32:

"An autopsy shows inflated and anæmic lungs, with here and there a patch of collapse. Membrane lines the tubes to a variable extent, completely plugging those branches leading to collapsed lobules."

Treatment for Chronic Rheumatism.—In response to a request in the *Medical Record* for some efficacious remedy in cases of chronic rheumatism, the following letter was received from Dr. J. Camp, of Michigan:

"Up here in Michigan we have a summary way of disposing of such cases. I am sixty-one years old; have practised medicine nearly forty years; have had chronic rheumatism for thirty years. For the last ten or fifteen, when a man or woman comes to me with chronic rheumatism, I take down my double-barrelled shotgun, and say, 'Get out of here, or I will blow your brains out!' This may be called the Traumatic method.

The New Edinburgh Infirmary.—The new Edinburgh Infirmary, just completed, is, according to the *Philadelphia Medical Times*, the finest hospital in the world. It is built on the three-story pavilion plan, with the medical and surgical parts entirely separate. It contains 571 beds, and the total cost is $1,700,000. Impervious paints and varnishes have been used to make the walls and floors non-absorbent. No expense has been spared to make the structure perfect in every detail.

Pleuro-pneumonia.—Two new outbreaks of this disease are reported, one at Yonkers and the other at Haverhill, N. H. In the former place, eighteen cattle have died from the disease within the past few weeks. In New Hampshire the governor has appointed a commission to take such action as may be deemed necessary in case of the spread of the disease.

In this connection it may be noted that the United States Veterinary Association, which some time ago advocated the establishment of a National Veterinary Sanitary Bureau, has prepared a petition, praying Congress to provide such a bureau.

Cremation.—The crematory of Dr Le Moyne at Washington, Pa., has recently been used again—this time on the body of a New York gentleman who died of phthisis.

Infant Mortality in Paris.—Owing to the growing increase in the death-rate of children of tender years in Paris, the Minister of the Interior has written a circular to the Prefects, ordering them to draw up regular reports as to the causes of the alarming mortality.—*Medical Press and Circular.*

Candidacy for St. Bartholomew's Hospital.—Professor Lister and Mr. Jonathan Hutchinson are said to be candidates for the surgeoncy at St. Bartholomew's Hospital, left vacant by the death of Mr. Callender.

Rush Medical College.—A concourse for the lectureship on gynæcology in the spring course of lectures in Rush Medical College will be held Jan. 6, 1880. Applications for admission thereto received from "regular" physicians only. All who desire to compete for the position are requested to apply to the secretary, who will assign subjects and furnish any desired information relating to the conditions of the concourse. At the last spring session of lectures, 148 students were enrolled; already 133 have matriculated for the same session.

J. H. Etheridge, *Secretary.*

Original Lectures.

ON SUBACUTE AND CHRONIC NON-SUPPURATIVE INFLAMMATION OF THE TYMPANUM AND EUSTACHIAN TUBE.

A Lecture Delivered at the Manhattan Eye and Ear Hospital.

By OREN D. POMEROY, M.D.,

SURGEON TO THE MANHATTAN EYE AND EAR HOSPITAL, AND TO THE NEW YORK FOUNDLING ASYLUM.

Gentlemen:—The subject which I have chosen for this evening's lecture I would denominate as Subacute and Chronic Non-suppurative Inflammation of the Tympanum and Eustachian Tube. This disease may be simply the remains of acute inflammation either in the tympanum or in the Eustachian tube. Generally we expect acute inflammation of the tympanum to be more or less self-limiting, and if the subject have a constitution which is not tuberculous, or affected with any dyscrasia, the disease goes on to a satisfactory termination, leaving nothing behind it. But frequently this is not the case, and the lingering inflammation remains after most of the symptoms have been subdued, and it is proper to denominate this subacute or chronic non-suppurative inflammation of the tympanum. A catarrh of the tympanum dependent upon taking cold may not differ in kind in the least from the fierce acute inflammation of the tympanum; the difference is in degree only. Again, an ordinary suppurative inflammation of the tympanum may recover completely, leaving the ear in a condition more liable to take on inflammatory action than before. In other words, the ear is a weak point, and if the patient takes a slight cold, the ear is much more likely to be affected than if the patient never had had any trouble with it, and we have the disease again developed in that ear. Many of the causes of acute inflammation apply equally well to these under consideration. For instance, exposure of the head and ears to cold in a general way, more especially if the patient is sitting at an open door or window, or listening at a draughty key-hole, and the air blowing in upon him, produces the inflammation we are speaking of. In the early period of the affection there will be a moderate secretion, but after a while the mucous glands may become atrophic and many of them destroyed, so there is very little, if any, discharge; and it might then be denominated dry catarrh, or, as some define it, "a proliferous inflammation of the tympanum,"* which I believe to be the latter stage of the same affection.

The symptoms in general I will divide into *subjective* and *objective*. The subjective symptoms are hardness of hearing, tinnitus, vertigo, defective memory, dulness of mental perception, unnatural sound of external noises, etc. Hardness of hearing depends upon hyperæmia and thickening of the lining membrane of the tympanum, and to sunken drum-membrane, with what we call impaction of the base of the stapes in the oval window. This you will readily see is due to difference in the air-pressure on the outer portion of the drum-membrane and the inner. The membrane of the round window is also put upon the stretch, the bulging being toward the tympanic cavity. The lowering of the hearing is accomplished in this instance by interference in the passage of the sonorous undulations to the labyrinth consequent upon this pressure, which, by the impaction of the stapes in the oval window, compresses the labyrinth water, and through this the terminal filaments of the nerve.

A word as to how the Eustachian tube becomes closed. Frequently it is closed by a collection of mucus in the faucial portion of the tube, but generally it is closed by a catarrhal swelling of its mucous lining, thus diminishing its calibre. Tinnitus depends very largely upon the above-mentioned pressure. Later on there may be present an unnatural sensitiveness of the nerve, so that every pulsation of the artery is painful, or invariably noticed, in which instance we have what may be called pulsatory tinnitus. That is, every time the heart beats the tinnitus is a little exaggerated. The symptom of vertigo depends almost altogether upon the same pressure which produces deafness and tinnitus.

The altered sensation in the tympanum and Eustachian tube is a very interesting phenomenon, but difficult to define, being much easier for a patient to observe himself than for any one to describe it. It is safe to say there should be no *sensation* in the ears. If there is sensation present, they are imperfect. When studying diseases of the heart you observe that a patient became conscious of its action only when it became diseased. Just so with the organ of hearing, its functions should be performed unconsciously. A crackling sound is often noticed in the tympanum during deglutition, or when the patient sneezes or coughs, and it is a little difficult to give a satisfactory explanation of this. The readiest explanation is, that there is a difference of air-pressure in the tympanum and throat, and whenever the patient swallows the tube is open and there is a rush of air to or from the tympanum, according to the location of greatest air-pressure. Again, in this disease the tube is much more readily *forced* by any excess of air-pressure in the pharyngeal space, owing to the relaxation of the mouth of the tube, by which its valvular opening is so changed that it no longer prevents the air from rushing in.

Another Symptom.—Sounds cause peculiar sensations upon the ear in this condition. They will be muffled, or be hollow and reverberating, and hence extremely disagreeable. Again, the patient may feel as though there were something in the ear which he might remove by shaking the head; it is something which annoys him rather than pains him. Occasionally we may have a throbbing sensation, and sometimes pain. The latter is not constant, and is liable to be of the darting variety. In the Eustachian tube there may be soreness or slight pain.

Objective Symptoms.—First, of the membraua tympani; and second, of the Eustachian tube. The meatus in the early stages may be smeared with cerumen, which is either too thin or too thick. It may be in considerable quantities, even to the degree of impacted cerumen. You remember when talking upon these cerumen cases I told you that a very large number of them had disease of the ear, and the presence of the cerumen seemed to be an important symptom of disease. The opposite condition also obtains. Later on there may be complete absence of cerumen from the ears, and I should explain it in this way: earlier in the disease there is a hyperæmia, you might say irritable and hyperæmic ceruminous glands; they secrete too much, which is altered in quality. After awhile they become anæmic and atrophic, and the secretion is diminished. The epi-

* Dr. Roosa.

dermis of the drum membrane is frequently lost—and, more or less detached, and occasionally slightly lacerated, thus giving the membrane a scruffy appearance. The meatus may be tender, reddened, with other indications of a subacute inflammatory process going on. You have all noticed that the external meatus is extremely sensitive to rough handling; and if there is a certain amount of inflammation present it will be still more sensitive. The membrane may look natural in color, or it may be reddened; the redness is always moderate, and is in the vicinity of the short processes, extending down along the malleus handle, with frequently a little peripheral injection of the membrane. Sometimes minute blood-vessels may be seen shooting in toward the centre. The membrane may be opaque, giving a whitish appearance. You remember, probably, that I told you that the drum-membrane should be gray and translucent, somewhat of the appearance of mother-of-pearl, and when looking at it you are conscious of seeing into its depth. This will be absent, and you have a tolerably that appearance when it is opaque. The light spot is usually small in size and frequently changed in position. Instead of forming an obtuse angle with the malleus handle, it will form a right or an acute angle, or even extend in the direction of the malleus handle, or may be displaced to almost *any* portion of the membrane. Frequently in excessive sinking of the membrane I have seen it pushed inward quite near to the periphery, giving a linear reflex, the line being parallel to the periphery of the drum-membrane. You occasionally have a light spot upon the most projecting portion of the short process; the light spot may be entirely absent from the loss of polish of the dermoid layer of the drum-membrane from changes which I have hinted at. It may be altogether too bright. The explanation of the latter may be somewhat fanciful. It is as follows: any inflammation of the mucous lining of the tympanum may not extend beyond the lining of the drum-membrane, the fibrous and dermoid layers remaining usually translucent, while the mucous layer is rendered opaque by the inflammation. A larger amount of light is thus reflected than usual, and we have a bright, glistening appearance, almost as bright as the reflex from fluid, but not quite. The malleus handle is foreshortened—that is, it is pushed inwards, and you see it obliquely. The inclination may be, and frequently is, unnatural. It will be too vertical or too horizontal. I will explain the change in the direction of the malleus handle as follows: the position of the anterior pyramid varies. It may be more posteriorly placed than usual, and retraction of the tendon of the tensor tympani will have a tendency to drag the malleus handle backward, making it too horizontal. On the contrary, if it is placed too anteriorly the tendency will be to draw it in a more vertical direction.

The processus brevis is almost always seen too prominently. There are several explanations for this, but I will give only one. The drum-membrane falling over it causes it to appear prominent, the same as if we wet our clothing; it settles down and reveals the contour of the body better than in its ordinary condition. The anterior and posterior folds are often exaggerated, more frequently the anterior. The anterior portion of the membrane is often seen in shadow, and a little darker colored than it ought to be, which is due to sinking of the drum-membrane and its being dragged out of the light. All these conditions are found, sometimes, upon the sunken drum-membrane. Occasionally we see signs of fluid. It is very difficult, indeed, however, to clearly determine positively when present. The drum-membrane looks a little more opaque and a little grayer; perhaps you will see a change in color which will be separated by a sharp line, indicating the height of the fluid. By moving the head backward and forward, a change in the line will be observed. If the head is thrown to the opposite side, it may disappear altogether, from the fact that the fluid recedes entirely from contact with the drum membrane.

Symptoms observable in the Eustachian Tube.—In general terms we are likely to have some form of diseased throat. It may not be sore. The patient may have a considerable amount of tubal catarrh without any accompanying sensations, and you will surprise him by a statement of the condition of things. I will enumerate some of the more frequent conditions met with. The color is usually intensified, the papillæ much hypertrophied, enlarged and somewhat varicose veins may be seen. Again, we may have what is called relaxed throat, it will be pale, there will be little or no swelling, and accompanied by the secretion of a thin, mucous discharge. Another form which would come under the head of dry catarrh is where the back wall of the pharynx is very red and dry, and glistening as if varnished. The mucous glands seem to be destroyed by atrophy—the disease most likely to accompany dry or profuse otitis. Enlarged tonsils are frequently observed; the velum pendulum may be swollen and œdematous, it may be too large, or it may be shrunken up, terminating in a sharp point. The appearances of the Eustachian tube are a little more difficult to observe an exact idea of them necessitating the use of the rhinoscope. I will enumerate some of the appearances of the tubes as seen by rhinoscopic examination:

I. Mucus in the mouth of the tube, with or without greenish or grayish mucus clinging or adherent to the post-nasal septum, and occasionally filling the nares.

II. Increased redness in and about the mouth of the tube, or paleness of the mucous lining of the part.

III. An œdematous condition of the parts near to and in the mouth of the tube, resulting in more or less swelling.

The swelling in the region of the tube, the result of hyperæmia or œdema, may: 1. So far obliterate the mouth of the tube as to cause it to appear as a minute dimple, or obliterate it entirely; or, 2. Produce so much swelling of the collar-like surrounding of the tube as to greatly exaggerate it. 3. Increase of the elevation which separates the mouth of the tube from the fossa of Rosenmüller. 4. Enlarge the posterior extremities of the middle and inferior turbinated bones, causing a malposition in the posterior nares, and gives them a rough and uneven outline. 5. Cause a ring-like swelling around the tube—rough, red, and of a macerated appearance.

IV.—Granulations similar to those found in the pharynx in granular pharyngitis near the mouth of the tube.

V.—Polypi in the posterior nares, and more frequently on the turbinated bones.

VI.—Whitish striæ, indicating cicatricial degeneration of the proper substance of the mucous membrane in the region of the Eustachian tube.*

Prognosis and Results.—Mild cases may entirely recover, especially in young subjects. The great trouble, however, is the disposition to relapse. I know of no disease that relapses so frequently. It

* From Dr. Roosa's Treatise on the Ear, communicated by the author of this lecture.

relapses whenever the patient takes cold, or if exposed to cold, and in this vicinity it is safe to say that harsh and irritating air frequently gives rise to the affection. Cure your patient, and again expose him to the same influence which first caused it, and the disease is likely to develop again. In this vicinity I find the air of Brooklyn and Jersey City worse than that in New York—the New York air being as mild in winter as any air I know of. A number of cases never become cured. These are among the adult and aged. We wish to head off the disease, the tendency being to become constantly deafer. It should be borne in mind that the ordinary hearing is greatly in excess of what the patient needs, and hence a patient may be totally deaf in one ear and hear sufficiently well for all ordinary purposes with the other. A patient may lose half his hearing, and yet what remains will be extremely useful, and if we can keep the patient in a condition to hear moderately well, we have done much. The profounder cases may be spoken of under the head of nervous deafness; certainly the labyrinth is frequently involved. We have few post-mortem examinations to determine the exact condition of the nerve. In unfavorable cases, at first the hearing may be improved by inflation, afterward it is unaffected, they go almost unavoidably from bad to worse, especially if they take cold occasionally. Tinnitus is an unpleasant symptom to manage. Where it depends upon pressure it may be relieved by inflation and the subduing of the catarrh, which causes the whole trouble. If, however, it depends upon some anomalous condition in the labyrinth, it seems impossible to cure it unless the inflammation has given rise to exudations which press upon the terminal filaments of the acoustic nerves. Such exudation may be absorbed by the use of iodide of potassium and mercury, more especially if they are of syphilitic causation. The thickening of the lining of the tympanum and drum-membrane, accompanied by anchylosis of one or all of the bones of the ear, is a phenomenon of frequent occurrence. This of course interferes with the movements of the ossicula and membrana, and makes the ear deaf. The base of the stapes may be driven into the oval window, and held there in a condition known as impaction of its base. Sometimes we may have falling-in of the drum-membrane, accompanied with a disposition to remain sunken, and even when pressed out will fly back again. A secondary contraction of the tensor tympani I have already alluded to. It comes about in this wise: first, we have sinking of the drum-membrane, the tendon lying in a lax condition for a while; after a time it retracts so as to assume a normal state of tension; and ultimately, if an attempt is made to push the drum-membrane out, it is held by this shortened tendon. When the drum-membrane has remained sunken for a while, it seems to have adapted itself to this position with such exactness that it is always likely to remain there. You may inflate and keep it in proper position, but the minute the patient swallows and lets out the air from the tympanum, it falls back into the former position. Sometimes we find calcific plates in the drum-membrane, giving it at this point a dull, whitish appearance. This prevents the sonorous undulations from being caught and carried in successfully, on account of diminished vibratory power of the membrane. The diminution of the calibre of the Eustachian tube I have hinted at; it is usually caused by swelling of the mouth of the tube, and occasionally from real strictures, the latter being extremely rare. Another condition of the Eustachian tube which is quite serious is this: the tube may have sufficient calibre, but it will *always* remain closed in this condition. You remember that the normal state of the tube is to *be* closed, and the air is let into the tube by the opening of the tube consequent upon contraction of its muscles. Let the muscles fall into a state of atony and they fail to let air in. That is a condition quite difficult to manage.

Treatment.—The first indication in the treatment is to arrest the inflammation; the second, is the management of the Eustachian tube; the third indication is the bringing of the drum-membrane back into its proper position; the fourth is to dispose of the products of inflammation.

First, the arrest of inflammation. If there is a feeling of fulness and pain in the ear, and there are signs of hyperæmia, apply a leech every one, two, or three days, for a week or ten days. You get on badly in the treatment of this affection so long as there is much hyperæmia of the tympanum. I recently had a case treated by the family physician, the diagnosis being tubal catarrh. He had treated the tube, which improved some of the symptoms, but the hearing failed to come up. I found considerable hyperæmia of the tympanum. I think I used three leeches at intervals of three or four days, and each leech brought the hearing up perceptibly. Then I went on with merely the ordinary treatment. You may use a blister behind the ear. I should recommend this, not because I have any special faith in it, but it is an old practice, and does no harm and may do some good. The tincture of iodine on the mastoid frequently does well. I have occasionally painted nitrate of silver upon the drum-membrane with good result. This winter I have several times had pain in my own ear, and have brushed upon the drum-membrane an eighty-grain solution of nitrate of silver, which relieved the pain very nicely, producing only a moderate feeling of warmth. The tincture of iodine may be painted upon the canal near the drum-membrane, but it should be used lightly, because it may produce considerable pain. The ear should be protected from the cold, as it is sensitive and loves the warmth.

The management of inflammation of the Eustachian tube is by general treatment of catarrhal symptoms, as well as by treatment of the tube itself. I am in the habit of using a hard rubber spray-instrument which bears my name, spraying thoroughly the upper pharyngeal space, and even the nares, if necessary. Ordinarily I use a twenty-grain solution of nitrate of silver every second or third day. The solution, however, may vary from five to eighty grains per ounce, being careful that you do not cause too much pain, and that the patient reacts after the inflammation—the guide being that the parts should not remain sensitive more than a few hours after the application and relief of symptoms should be given. In the application of nitrate of silver to these parts I advise you to feel your way along somewhat experimentally, all the time observing its effects carefully. Carbolic acid to spray the throat with is an extremely good remedy, and may be used in the strength of one to two drachms to the pint of water. This hurts considerably during the first part of the application, but it does not last. A great variety of astringents may be used, but I will not stop to enumerate them here. Your remedies are a little more effective if applied directly against the mouth of the tube.

I would also advise the use of the ordinary Eustachian catheter, or my own faucial catheter. With the faucial catheter, from a fraction of a drop to two or three drops of the solution will be sufficient. With

the ordinary catheter you will require more, on account of much being arrested in the interior of the catheter. Be careful not to apply it too freely, it may excite pain, and be careful also not to throw it into the tympanum. I use my solutions pretty strong, a twenty to eighty grain solution of the nitrate of silver is quite proper to use. The indications are, to open the tube so that the patient hears as well after inflation as before. So long as you improve the hearing by inflation, you have a right to diagnosticate that there is insufficient patulency of the tube. I rarely use bougies, as true strictures are extremely infrequent.

Inflation may be accomplished by means of the Eustachian catheter, Politzer's method, by my faucial catheter, or by Valsalva's method. The objection to Politzer's method and Valsalva's is, that it inflates both ears at once, whereas we may require it in only one, although in this diseased condition generally both ears are affected. The indications for inflation are usually more than one. So long as the hearing needs to be elevated to the highest attainable point, inflate, but be extremely careful about over-inflation. I never give my patients a Politzer bag. I sometimes test the hearing by means of a watch, and if it is not quite up to the standard, then I inflate a little. You may take a flexible rubber tube and exhaust the air from the meatus externus sufficiently to draw the drum-membrane out. You may give the patient this tube, one end to be placed in the ear, and the other in the mouth of the patient, and by exhausting the air by the mouth, draw the drum-membrane outward. I object to this method somewhat, because it produces a certain amount of congestion of the tympanum. The plan has not, in my hands, been very successful. Paracentesis of the drum-membrane is often serviceable for the relief of the sunken condition of the said membrane. It is as good for the relief of tinnitus as anything I have tried. The *rationale* of its use is this: every time you make a puncture a cicatrix forms, and hence, in consequence, contraction of the membrane tends to diminish the sunken condition. It also allows the air to enter the tympanum, when the latter may somewhat represent a vacuum. To dispose of the products of inflammation, I would simply use mercury and iodide of potassium. I think I prefer to use the inunction method for four to eight days, long enough, if possible, to get a little metallic taste in the mouth—but no approach to salivation—followed by ten days or two weeks of iodide of potassium; then return to the mercury, if necessary. But you may use mixed treatment. Sometimes you will accomplish an unexpected amount by this treatment, especially if there be any syphilitic complication. Much more might be said about in this connection.

Another point I would lay stress upon—and that is, the bringing of the patient's health up to the highest state possible. Have him well fed, well clothed, and well taken care of generally, and do not let him work too hard; in short, keep the patient in the best possible hygienic condition. In summer, take baths daily if the patient bears it well; in the winter, twice per week, perhaps only a sponge-bath, followed by much friction. If clear water is depressing, use salt-water baths; artificial, if you please. A good plan is to have the patient rubbed down every night with hair mittens, or its equivalent.

METRIC SYSTEM.—The *British Medical Journal* has recently had a leader, advocating the adoption of the metric system by the medical profession in England.

Original Communications.

ON THE BRAIN OF A CHIMPANZEE.

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By common assent of anatomists, physiologists, and philosophers, the brain has been considered as the seat of the mental processes in the higher animals. Holding as it does this dignified position, it however been regarded as the most mysterious product of nature. Within its seemingly quiet mass, protean matter assumes a new and startling phase—nature becomes conscious of herself. Everything which to man constitutes reality of existence—all thought, all knowledge, all experience—are but correlations of its changes. The reality is the felt. The felt is but a symbol for cerebral change. Nature, as an eminent thinker has remarked, must ever remain mystic to man, and never does he recognize more fully the truth of this remark than when he turns his investigations toward himself. The philosopher calculates the distance of the stars, and determines the nature of the matter of which they are composed, but when confronted with the mystery of his own consciousness he is compelled to admit his total ignorance. Naturally, therefore, that organ of the body in which these changes occur, and within whose limits these startling phenomena take place, has attracted profound attention and study, and yet, even at the present day, its intimate structure is among the least known of all the organs of the body. Indeed, it has been only within comparatively recent years that those windings and furrows of cerebral hemispheres, the so-called convolutions and fissures, have been attentively studied, and the question still remains an open one as to their exact significance. Although we may not hope to know anything of the fundamental nature of those processes, which we include under the generic term mind, yet much may be hoped for in regard to a knowledge of many of its phenomena. Already the old view—superstition it might, with propriety, be termed—that all mental phenomena are the product of a distinct and separate agent, having no dependence upon brain structure, but simply using it as an instrument in its communications with the external world, has been destroyed. It fell with the fall of the old metaphysical school. It fell as the science of biology evolved. It now takes rank with the exploded notion of a vital force. In its place has been substituted the doctrine that all the phenomena of life depend upon the elements of life—namely, the organic cells. The sum total of the life of an animal is the summation and resultant of the action of its individual parts or cells. Hence, mental phenomena must arise from the action of certain definite cells, and the mental life of a man, as of an animal, equals the sum of the actions of these cells. Because the method or way in which this is accomplished is not understood, is no reason for rejecting what reason, experience, and observation force upon us. Although the conversion of the forces of matter—modes of motion—into consciousness and thought, must forever remain inscrutable, yet the fact remains. Experience is our sole teacher, and the constant conjunction and relation of phenomena is our sole ground for affirming a necessary connection between them.

The consciousness of matter must be admitted and recognized for the same reason that we admit it to possess any of its other properties. We affirm that a muscle contracts, because of the nature and position of its molecules; so must we affirm that a brain thinks, because of the nature and position of its molecules.

Recognizing this fact, it forces upon us the conclusion that the form and structure of the brain must be correlative with its mentality, and therefore that in brains in which the structures closely resemble each other we will find a corresponding similarity in the mental processes. At present the field of comparative anatomy is being eagerly explored, and observations upon the brains of animals, and especially of those most nearly related to man, are justly regarded as of considerable importance.

The order of *Primates*, to which man belongs, is divided into three groups: the *Lemuridæ*, or lemurs; the *Simiadæ*, or monkeys and apes; and the *Anthropidæ*, including the various races of men.

The chimpanzee (*Troglodytes niger*) belongs to a division of the *Simiadæ*, known under the name of the *Anthropomorphæ*, or man-like apes. This division includes three genera: *Hylobates* (gibbons), *Pithecus* (orang), and *Troglodytes* (chimpanzee and gorilla). From their near genetic relations to man, observations on the brain of these animals are of especial interest and importance. The following brief account is given in the hope that it will prove of interest to the readers of the MEDICAL RECORD. A more detailed description will be read before the Philadelphia Academy of Natural Sciences.

The body of the chimpanzee, the description of whose brain is here given, was kindly placed in my possession by Prof. Leidy. It is that of a young male of about four years of age, which died in the Zoölogical Garden of Philadelphia last winter. The cause of death appeared to be gastro-enteritis. Otherwise the animal was in good condition. The brain was in an excellent state of preservation, and on being removed from the skull, was placed in a solution of chloride of zinc of sufficient specific gravity to float it. It was afterward transferred to alcohol. Its condition is therefore very perfect, there being little distortion or change in the relative position of its different parts.

The length of the animal, from the vertex to the heel, measured two feet and four inches; vertex to tuberosities of the ischium, one foot six inches; circumference of the head, fourteen inches; distance over the vertex from one external auditory meatus to the other, five and three-fourths inches.

The animal weighed, while living, according to Mr. Arthur E. Brown, Superintendent of the Zoölogical Garden, eighteen pounds.

The entire brain weighed 9¾ oz., about half an ounce less than the brain of a female chimpanzee which died at about the same time, and which weighed, according to Dr. H. C. Chapman (Proceedings Academy of Natural Sciences, Philadelphia, 1879), 10 oz. 10 grs. According to Owen, a half-grown male's brain weighed 9¾ oz., and that of an adult female chimpanzee, 13¾ oz. A specimen examined by Marshall weighed 14 oz., and one by Traill 11 oz.

Dr. H. C. Chapman, in the paper referred to above, states, that on examining the brain before removal, he found the cerebellum uncovered by the posterior lobes of the cerebrum to the extent represented in the plate which accompanies his paper. As so much discussion has taken place in reference to this question, and as Dr. Chapman's observation is not in accordance with the most recent views on this subject, I examined the brain in my possession very carefully, and found that the cerebellum was completely covered by the cerebrum. A plaster cast was then made of the interior of the cranial cavity, and the posterior lobes were found to project back of the cerebellum four mm. As Dr. Chapman's plates of the brain of the chimpanzee show that his specimen has undergone considerable distortion and flattening, and plainly indicate that the cerebrum has fallen forward and the cerebellum been pushed backward, and that therefore, in the natural condition, the cerebellum would not be uncovered, at least to the extent represented by the plates, I thought it would be desirable to make a cast of the cranial cavity in Dr. Chapman's specimen, in order to be able to compare it with the cast referred to above. Having obtained this, however, I found that in this case, also, the posterior lobes of the cerebrum completely covered the cerebellum and projected beyond them to the extent of 3 mm. Dr. Chapman's observation must therefore have been influenced by this distortion; and that such a mistake might easily occur is supported by the opinion of Marshall (Brain of Chimpanzee: Nat. History Review, 1861), who remarks as follows: "Such a deformation must occur to a greater or less extent in every brain removed from its cranial case and placed in a similar position. Its effects are surprising to those who are not familiar with them, and cannot be correctly estimated without comparing the so-altered brain with a cast of the interior of the cranial cavity. It influences the form of the encephalic mass in all three of its cubical dimensions. The general results are: a slight lateral bulging of the cerebral hemispheres opposite the parts tied together by the corpus callosum; a more marked falling asunder of the hemispheres at each extremity, but especially behind; a moderate elongation of the hemispheres; and lastly, a very marked compensating flattening on both the upper and under surfaces, but especially on the former, so that its characteristic convexity is completely lost. Moreover, the cerebellum, together with the pons and medulla oblongata, drag on the cerebral peduncles, so as to make these latter assume a position nearly parallel to the under surface of the brain, instead of descending obliquely from it; hence the cerebellum falls backward farther than in its natural state, presses somewhat aside the posterior ends of the cerebral hemispheres, and so modifies the proper relative position of these parts of the encephalon. A comparison must be referred to a cranial cast, or the brain must be hardened in the cavity of the skull."

I have since made casts of the cranial cavities of several skulls of gorillas, chimpanzees, orangs, and in all thus far examined have found the cerebellum to be completely covered by the posterior cerebral lobes.

According to Macartney, Gratiolet, Thomson, Huxley, Rolleston, Marshall, Spitzka, etc., and in three cranial casts of chimpanzees by the writer, the cerebellum is completely covered by the cerebrum. On the other side we have the assertions of Owen, the figures given by Tyson, Tiedemann, Schroeder van der Kolk, and Vrolik, and the observation of Dr. Chapman. Owen's assertions have been proved, through the researches of Huxley, Flower, etc., to be incorrect. Tyson's figures are very imperfect, and so much distorted as to render them useless. In Tiedemann's figures, although they are carefully drawn, the vertex shows evident signs of flattening, the orbital surfaces have lost their

characteristic concavity the hemispheres have fallen somewhat forward and apart, so that the backward projection of the cerebellum is not to be considered as the natural position when within the cranial cavity. The same objections apply even more forcibly to the figures given by Schroeder, van der Kolk and Vrolik, and the enormous surface of the cerebellum left uncovered shows clearly that in reference to this point these plates are very imperfect. As Dr Chapman's observation does not agree with the facts, as shown by a cranial cast, it must be considered as due to the same cause—that is, the change in relative position which takes place when the membranes of the brain have been removed, or the brain itself removed from the cranial cavity. Observations up to the present time would therefore seem to show that in the chimpanzee the cerebellum is completely covered by the posterior cerebral lobes.

General Form, etc.—The brain, when viewed from above, is ovoid in shape, the narrowest end of the oval being situated anteriorly. On comparison with the human brain, we find the chief difference consists in the greater length and more equal width of the frontal region in man. In a profile view, the brain presents above a globular form, the upper border of the hemisphere following a regular curve, the vertex or highest point of which is situated about midway between the anterior and posterior parts of the brain.

The frontal lobe is quite large, but has little vertical height, and terminates anteriorly in a beak-like projection, between which and the temporal lobe we have the strongly arched concave orbital surface, which is so characteristic of both the orang and chimpanzee when compared with the flattened surface of the same region in man. The parietal lobes are quite large. The temporals are well developed, and project markedly downward. As to the posterior or occipital lobe, it is large, possessing considerable vertical height, and projects completely behind the cerebellum. The inferior border of the hemisphere, extending from the occipital to the end of the temporal lobe, is arched, with its convexity upward instead of pursuing a horizontal and nearly straight direction, as it does in man. The lateral surfaces of the hemisphere are evenly convex, and not wall-sided, as found in the orang by Rolleston.

On a basal view, the pointed character of the frontal lobes anteriorly is very marked. A median ridge, equal in height to the downward projection of the temporal lobe, extends on each side of the longitudinal fissure, and bounds the extremely concave orbital surfaces internally. The cerebellum is flatter and proportionately wider than in man.

Fissures and Convolutions.—The fissure of Sylvius has the same relations as in man, but pursues a more vertical direction. It consists, as in man, of an ascending and a horizontal branch. The fissura centralis, or fissure of Rolando, is situated more anteriorly than in man, and is undulating in its course, presenting three or four well-marked curves. In man nearly one-half of the upper cerebral surface lies in front of this fissure, while in the chimpanzee only about one-third is found situated in front of it. The parieto-occipital internal perpendicular fissure on the left hemisphere is continuous with a well-marked external perpendicular fissure, but on the right side is separated completely by a well developed *pli de passage supérieur externe*. On the left side, therefore, the posterior border of this fissure, the operculum of Giratiolet, is smooth and uninterrupted, as we find it in the lower primates, while on the right side it is bridged over as in man.

Convolutions and Fissures of Frontal Lobe.—In the frontal lobe of the chimpanzee we find the same fissures and convolutions as in man. A gyrus centralis anterior bounds the central fissure in front and arches around the two ends of this fissure to join the posterior central convolution above and below. From this convolution there passes forward three frontal convolutions—a superior, middle, and inferior, separated by two fissures—the superior and inferior frontal fissures. A well marked fissura præcentralis exists, which on the left side is continuous superficially with the ascending branch of the Sylvian, but is perfectly distinct from it on the right. The gyrus frontalis superior arises by a single root from the anterior central convolution, is wider than the middle and inferior, and is marked by a number of secondary fissures. The gyrus frontalis medius arises on each side by a distinct root from the anterior central convolution, is very tortuous, and but slightly marked by secondary fissures. The gyrus frontalis inferior also arises on the right side by a distinct root from the gyrus centralis anterior, but on the left side is separated from it by the fissura præcentralis. On the orbital surface, besides the sulcus olfactorius we have a well-marked sulcus orbitalis, which has the same triradiate arrangement as in man.

Convolutions and Fissures of the Parietal Lobe.—In the parietal lobe there is a distinct and well-marked fissura interparietalis, which extends back to join the external perpendicular. On the left side its continuity is interrupted by a single bridging convolution; while on the right, although tortuous, it is represented by a single continuous furrow. In front of this fissure, and between it and the central, is a well-marked gyrus centralis posterior, which at its upper extremity passes into the mesial surface and forms a distinct lobulus præcuneus as in man. Beneath this fissure is the gyrus parietalis inferior, which is divided into an anterior portion, or lobulus supramarginalis, and a posterior or gyrus angularis, which have the same relations as in man.

Convolutions and Fissures of the Occipital Lobe.—The occipital lobe is sharply marked off above from the parietal lobe by the external and internal perpendicular fissures, their continuity being broken, however, on the right side by the superior external *pli de passage*. Inferiorly, it passes directly into the temporal lobe as in man. It presents on its external or lateral surface a strongly marked triradiate sulcus, which divides it into an anterior superior, an anterior inferior, and a posterior lobule, which correspond with the three convolutions found on the same surface in man. On the mesial surface there is a well-developed lobulus cuneus, from the apex of which there passes forward on both sides a well-developed gyrus cunei (internal inferior *pli de passage*) to join the lobulus præcuneus. This convolution completely separates the parieto-occipital fissure (fissura perpendicularis interna) from the calcanic fissure, whilst in man this convolution is but feebly, if at all, developed, and the parieto-occipital and calcanic fissures join each other. The fissura calcarina presents the same appearance as in man, except that anteriorly through the slight development of the gyrus dentatus it passes superficially into the hippocampal sulcus of the temporal lobe. Beneath the calcanic we have a well-developed fissura collateralis separating a well-developed lobulus lingualis from the lobulus fusiformis.

The convolutions and fissures of the mesial portion

of the fronto-parietal lobe and of the temporal lobe differ but slightly from the same structures as found in the brain of man.

The lobulus centralis, or island of Reil, is well developed, and is marked by several conspicuous radiating convolutions (gyri breves, Gall), and lies entirely concealed beneath a well-developed operculum.

From the above short description it may be seen that every fissure and convolution of the human brain is well represented in the chimpanzee's brain, so that we must expect and find, according to the observations of recent observers, that in many respects the mental processes of this animal resemble those found in the lower races of mankind.

ON SOME POINTS IN THE THERAPY OF CHLORAL HYDRATE.

By J. W. HICKMAN, M.D.,

DELTA, PA.

My object, in these notes, will be not so much to present new matter in the therapeutics of chloral as to give a bird's-eye view of the present state of our knowledge, as recorded in the literature of our day and as verified in my own experience.

Although known to the chemical world since 1832, chloral was not recognized to possess therapeutic worth till in May, 1869, when Oscar Liebreich, of Prussia, announced * that important truth, attested by a well-executed set of experiments.

So far very little of our knowledge of the uses of chloral has been derived from its physiological action; scientific therapeutics has added but a trifling quota to the fund of ascertained facts relative to its practical application in disease. Notwithstanding this, however, we know a great deal of its correct use and much of those conditions contraindicating its administration. For instance, no practitioner who keeps apace with the progress of the day would, for a moment, think of exhibiting chloral where either the respiration or circulation were seriously compromised. It would be absolutely criminal to give it in advanced (or recent, either, for that matter) disease of the lungs where the right heart is being continually overtaxed. Nor would he be less guilty who would think of giving chloral in the sleeplessness of valvular disease of the heart. Yet it has been but a few weeks since I knew a practitioner of a neighboring city to suggest the use of this very drug in precisely such a case as the last-named, with a severe dyspnœa superadded. At this point I must relate a most instructive case recorded by Fothergill †: "A patient was taken into the West London Hospital, with emphysema and aortic stenosis. In spite of rest, digitalis, and ammonia, he was liable to attacks of dyspnœa, which had come on *since* his admission into hospital. On searching for an explanation, it was found that the house-surgeon had benevolently prescribed chloral for the sleeplessness complained of. This was at once stopped, and the attacks of dyspnœa never returned, though the man gradually sank." After the principle enunciated above, it seems idle to remark that a fatty heart would not certainly brook even a medium dose of chloral; in such cases paralysis of the heart has occurred before the involvement of the lower centres of the brain. J. Crichton Browne has made a curious observation, and one of no small practical importance. He has ascertained that chloral exerts an effect proportional to cerebral development; that it must be administered most cautiously to the most intellectual. This fact is further borne out in that it takes a larger than ordinary dose of chloral to induce its physiological effects in microcephalic idiots. I have seen this latter point abundantly evidenced. This may, perhaps, go to explain some instances of death occurring from a moderate dose—fifteen to twenty-five grains. Again, the matter of bodily temperature should have much to do in determining the proper dose of chloral, for serious symptoms, and even death, have occurred from undue neglect of this consideration. Even so apparently trivial a point as the temperature of the patient's room should be taken into account; for we must remember that the tendency of this agent, besides slowing the action of the heart, is to dilate the peripheral vessels, and thus to increase the heat-losing area of the body. Thus we see that great circumspection should be used in prescribing a remedy of such varying potency as chloral. This care should be taken, not only to avoid death, but that we may derive the most satisfactory and beneficial results from its use.

Standing forth most prominently in the therapeutics of chloral is its value as a sleep-producing agent. The late Prof. Biddle says: * "It is a most reliable hypnotic, second only in this particular to opium." Now, from the view of this eminent teacher, the writer feels in duty bound to dissent. It should be recognized as an undisputed fact that there is no soporific agent at all comparable to chloral. Varied in dose, according to rules above laid down, it least frequently disappoints the expectations of the practitioner. It does not induce the swimmy, broken sleep of opium, but quiet, dreamless, and refreshing slumber, strikingly resembling that of health. The patient may be awakened with a confidence that he will at once relapse into forgetfulness. Nor is it, like opium, followed by disagreeable sequences, either cerebral or gastric. On the contrary, so far as the stomach is concerned, digestion is not unfrequently stimulated by its use. It will not, however, exert the slightest soporific influence in painful conditions of the system—it possesses no anodyne properties whatever. When the object is to lull pain and induce sleep, about one-fourth of a grain of morphia sulph. with ten grains of hydrate of chloral will be found a most valuable combination.

Then, too, in conditions of the system where the patient is *too weak to sleep*, anodynes will be found to aggravate rather than secure rest; while in chloral, perhaps, with the bromides given with a little light wine or champagne, we have the most efficient means at our command.

In the sleeplessness due to excessive mental work, chloral exercises a peculiarly happy influence, as the writer has fully verified in his own case while yet a student. When pushed almost to the extreme of nervous and mental exhaustion from this cause, chloral would induce a night of refreshing sleep with an entire renewal of the jaded energies.

Chloral is one of the agents that has seemed to be of service in tetanus. Macnamara lays great stress upon its value, and announces that of twenty cases in India, all traumatic, seventeen recovered by the use of chloral. In large doses it is, perhaps, as effective as any drug we possess. Prof. Gross very ac-

* Das Chloralhydrat, ein neues Hypnoticum und Anæstheticum, und dessen Anwendung in der Medicin. Zweite Auflage. Berlin.

† Antagonism of Medicines, p. 53.

* Mat. Medica.

curately expresses the truth, however, when, in summing up the internal treatment of tetanus, he says: "All drugs are, in fact, equally of apocryphal virtue."

In the management of sea-sickness no agent has given such satisfactory results as chloral. The usual dose of about twenty grains is to be given every three or four hours, the patient observing the recumbent posture and taking nourishment in some shape or other.

Bartholow bears personal testimony that there is no remedy now known so efficient in cholera as chloral hypodermically used. The same treatment is also peculiarly effective in cholera morbus. In both conditions the remedy is enhanced in value when combined with a little morphia, as follows: ℞ Chloral hydratis, ℥ij; morph. sulph., gr. iv; aquæ laurocerasi, ʒij. Misce. Sig. From fifteen to thirty minims hypodermically. This injection produces considerable burning pain, and sometimes an indurated lump, but is rarely, if ever, followed by suppuration.

In an extract in *The Practitioner* for October, 1879, Dr. Curci states that chloral is a most valuable remedy in dysentery. It may be given either by mouth or rectum. When given by the mouth it was found advantageous to anticipate its use by a slight purgative. He is very emphatic in his praise of the remedy, and, judging from its effects upon like lesions on the exterior of the body, together with its ascertained systemic effects, I would strongly advise that the profession give it a trial.

Again, Dr. J. H. Scorff reports four cases† where he was successful in removing the vomiting of pregnancy by rectal injections of twenty grains, night and morning. He only found it necessary, in the cases recorded, to administer the remedy three or four times. This also merits remembrance and repetition at our hands.

Chloral is the remedy *par excellence* in the ravings of delirium tremens. Like other drugs, it sometimes deceives us, but in general will be found reliable. Care must be taken in old debauchees that the dose given be not excessive; especially must we be circumspect where there is reason to believe the circulatory system has undergone degeneration of tissue, or rest may be induced which knows no reaction.

Chloral will also be found highly serviceable in certain other conditions of the system attended with delirium and insomnia combined.

It has been recommended and used in puerperal convulsions; but in my opinion is to be absolutely and radically condemned as a *sole remedy*. Too often already has it lulled the physician and friends of the patient into a deceitful security to be trusted further. If there is a truth in the whole domain of medicine, the lancet boldly used is *the one and only reliable* agent in this condition.

On the contrary, infantile convulsions may frequently be suspended by the discreet use of chloral.

Attacks of laryngismus stridulus are speedily broken up by timely doses of chloral.

Its use has been urged in whooping-cough, but its value is extremely questionable.

Exceptionally good results are obtained in inflammatory and febrile conditions when attended by delirium and wakefulness, with a high temperature. Recently, in a case of typho-malarial fever treated by the writer, chloral was found to control, in a most happy manner, the busy, exhausting delirium attendant thereon. It was administered by enema, and the sleep induced constituted the turning-point in the case.

* System of Surgery, vol. i.
† Virginia Medical Monthly.

MEDICINAL SPRING WATERS.

By JOHN C. PETERS, M.D.,

NEW YORK.

As analysis of mineral waters, it is said, shows that the important minerals present in medicinal springs, either form integral parts of our bodies, or their presence is occasionally necessary to the accomplishment of some of the vital processes; but they may easily be imitated by artificial prescriptions.

We will first consider the *chlor-sodic*, or common table-salt waters, all of which, like the *Saratoga*, are tonic and stimulant, and finally aperient. Saratoga water contains 390 grains of muriate of soda to the gallon, 131 grains of bicarbonate of lime, 54 of bicarbonate of magnesia, 34 of bicarbonate of soda, and 409 grains of carbonic acid gas. These waters give activity to the cutaneous, intestinal, and urinary functions, developing appetite, and demanding a substantial diet during their use. They are also powerfully alterative.

The High Rock waters are recommended in dyspepsia, cutaneous diseases, hypochondriasis, urinary and hepatic calculi, and biliousness. Astonishingly large calculi, together with great quantities of gravel, are often worked away by these mineral waters, and patients are often seen exhibiting them to their friends and acquaintances.

The *sulph-sodic*, or Glauber salt waters, like those of *Carlsbad* in Bohemia, and Hunyadi, are much less common than the chlor-sodic; and even in the strongest of them there is often much less sulphate of soda, in proportion, than there is muriate of soda. Carlsbad contains 45 grains of solids in 16 ounces; of these, 20 are sulphate of soda; 9, carbonate of soda; 8, chloride of sodium; with 8 cubic inches of carbonic acid gas. The Bavarian *Kissingen* waters, which are often erroneously included in this class, have 65 grains of solids in 16 ounces, of which 45 are chloride of sodium; 8, carbonate of lime; and 4, sulphate of magnesia; with 41 inches of carbonic acid gas. Glauber salt extracts a much larger amount of water from the blood than the chloride, and hence is much more purgative—in fact, the most of it is discharged with the fæces; hence, very little is absorbed into the blood, or reaches the kidneys, or gets into the urine. Sulphate of soda in mineral waters is generally associated with carbonate of soda, much free carbonic acid, iron, muriate of soda, etc. The two latter ingredients counteract the tendency of the others to debilitate by depletion and refrigeration. The carbonate and chloride of sodium of these waters reach the urine, which becomes increased in quantity and is rendered alkaline. The blood is depurated, and should be resupplied with healthy materials; the appetite is improved and digestion promoted. The cases most benefited by the *Carlsbad* waters are liver and abdominal diseases, gouty and rheumatic disorders, dyspepsia and constipation, while persons with enlarged livers derive remarkable relief. The *Kissingen* waters are valuable in habitual constipation, congestion of the liver and kidneys, dyspeptic eructations or flatulence, and in disease of the mesenteric glands. Almost all the benefits of these waters may be obtained by poor people, by a mixture either of Glauber salts, or Epsom salts, or both, with a little table salt, in water.

Where sulphate of lime replaces the sodic salt the waters are sedative, alterative, and antispasmodic.

The *alkaline sodic waters*, rich in carbonate of soda,

are well represented by the *Vichy* waters of Central France. Bicarbonate of soda and carbonic acid gas form the predominating ingredients, each 16 ounces containing from 36 to 39 grains of carbonate of soda, and from 6 to 20 grains of carbonic acid gas. Wherever the use of strongly alkaline waters are indicated, those of Vichy will prove useful. The diseases which derive most benefit from them are pulmonary catarrh, debility and irritability of the digestive organs, chronic enlargement of the liver and spleen, uric acid gravel and calculi, chronic gout and rheumatism, and some cases of albuminuria, especially in the fatty kidney. Obesity has been lessened by these waters, and they have been used when the blood contains an excess of fibrin. The dose is from one-half to two pints daily—and poor people may readily imitate them by putting rather more than half a teaspoonful of soda in a pint of warm water, or in ice-water. Three of the Vichy springs are thermal, having a temperature from 105° to 110° Fahrenheit; while three are cool, varying from 53° to 80°.

The *alkaline chlor-sodic* waters, like those of *Ems* in the Duchy of Nassau, are weaker than those of Vichy. The waters are alkaline, saline, and gaseous. The chief constituents are bicarbonate of soda, chloride of sodium, and bicarbonate of magnesia. These waters are generally recommended in bronchial and pulmonary affections, and in the dyspepsia of those who have a tendency to phthisis. But able physicians, such as Carus, of Dresden, prefer the waters of *Soden*, in Nassau, for consumptive cases, although the principal constituent of these waters is merely chloride of sodium. This is only one form of the alkaline treatment of consumption. It is well known that one of the Ems springs is in repute for the cure of sterility, especially in fat women, and in those who have fatty degeneration of the ovaries, etc.

Many authors divide the *sulphur waters* into the *sodic* and *calcic*, and say that the former are frequently devoid of the smell of free sulphuretted hydrogen, and are often more powerfully remedial than the malodorous calcic waters, such as Sharon and Richfield, quite contrary to the popular notions on the subject. Cutaneous, rheumatic, neuralgic, and catarrhal disorders are those most commonly treated by sulphur waters, although gunshot wounds and abscesses heal very quickly under their use.

The *chalybeate or ferruginous* waters are divided into those which contain much carbonic acid gas, like those of Schwalbach, Spa, Pyrmont, etc.

The *Schwalbach* waters of Nassau, near Wiesbaden, owe their invigorating properties to carbonate of iron, which is held in solution by an excess of carbonic acid. They also contain a little soda, magnesia, and lime. The Weinbrunnen contains most iron, and is believed to counteract the evils arising from the excessive use of wine. The Paulinenbrunnen is used for torpid livers, and its waters are drunk fasting to the extent of one to three glasses, and are highly recommended in cases of impaired strength.

The *Spa* waters of Belgium are largely charged with carbonic acid, their chief constituents being the bicarbonates of soda, iron, lime, and magnesia. They are taken to the extent of two or three pints daily, and impart power, strengthen the digestion, and are valuable in cachectic diseases.

The *Pyrmont* waters are saline, earthy, and chalybeate.

The *Baden-Baden* waters are still weaker, having only about 23 grains of salts to the 16 ounces, of which 18 grains are chloride of sodium; 2½ grains are sulphate of lime; only one-tenth grain of iron, with less than half a cubic inch of carbonic acid. The temperature is from 117° to 154° Fahr., and the waters are of course transparent, inodorous, and slightly saltish, and their efficacy must be slight.

The *Homburg* waters are stronger, containing about 110 grains of salts in the 16 ounces, and are highly charged with 48 cubic inches of carbonic acid. The chief salts are chloride of sodium, 79 grains; chlorides of magnesium and calcium, 15 grains; carbonate of lime, 11 grains, and the same of iron. The Kaiserquelle has more chloride of sodium than the favorite Elizabethquelle—viz., 117 grains; more chloride of calcium, and more iron. The Stahlquelle is more ferruginous than either. The flavor of all these waters is refreshing, saltish, somewhat bitter, and chalybeate. Gout, dyspepsia, strumous enlargements of glands, debility of the reproductive organs, constipation and hypochondriasis have been benefited by them. From two to four tumblerfuls are taken fasting.

The *saline purgative waters* have sulphate of soda or magnesia, or both, as their chief ingredients. The principal ones are Epsom, Cheltenham, Leamington, Seidlitz, Pullna, Carlsbad, Marienbad, and Hunyadi.

The *Cheltenham* waters contain chiefly the chlorides of sodium, calcium, magnesium, and sulphate of soda. They are but slightly gaseous. They enjoy considerable reputation in bilious and liver diseases engendered in hot climates, in gouty and rheumatic disorders, in the lithic acid diathesis, in plethoric and irritable states of the system, in skin diseases, in dyspepsia with constipation, as well as in some forms of amenorrhœa and chlorosis. The dose is from one-half to one pint before breakfast.

The *Leamington* waters in Warwickshire also contain the chlorides of sodium, calcium, and magnesium, with sulphate of soda. The chief gas is carbonic acid, with great quantities of oxygen and nitrogen. Their action is aperient and alterative, and being more active than the Cheltenham, they agree better with invalids of a torpid rather than of an irritable temperament.

The *Pullna* waters of Bohemia are bitter, saline, very nauseous, and indigestible, and possess no advantages over the common purgative salts, viz., Epsom and Glauber. They contain 124 grains of sulphate of soda (Glauber salts) in 16 ounces; 93 of sulphate of magnesia (Epsom salts); 16 of chloride of magnesium; and 6 of carbonate of magnesia.

The *Marienbad* waters of Bohemia are saline chalybeate, the chief constituent being sulphate of soda, with a moderate quantity of iron and carbonic acid. They are laxative, alterative, and tonic in proportion to the dose—from one to six tumblerfuls; while they increase the action of the liver and kidneys, and promote appetite. They are particularly valuable in chronic disorders of the abdominal viscera. The mud-baths are said to heal chronic ulcers and disperse glandular swellings. The gas-baths, containing carbonic acid with a small amount of sulphuretted hydrogen, soothe muscular and neuralgic pains, and remove torpor of the female organs.

The *Iodobromated* waters of *Kreutznach*, in Rhenish Prussia, are the most celebrated. They are rather nauseous and bitter, but have a considerable reputation in the cure of uterine diseases and scrofulous affections. They contain about 90 grains of salts in 16 ounces of water, of which 73 are chloride of sodium, 13 chloride of calcium, 4 chloride of magnesium, ½ grain of bromide of magnesium, and a trace

of cubic feet. They have proved valuable in connection with the uterine organs in hypertrophy and indurations of these parts, and in deficient secretion of the mucous. Although they will not absorb true fibroid tumors, they relieve oedema and congestion of these growths.

The *Bedford Baths* waters contain a little chloride of lithium.*

[To be continued.]

A MODIFICATION OF THE OPERATION FOR FISTULA IN ANO.

By J. J. KNOTT, M.D.,

ATLANTA, GA.

The following procedure will be found to do away with some of the inconveniences, and the most of the pain attending the operation for fistula in ano. I have tried it in two cases with perfect satisfaction. Introduce the anal speculum, with the fenestra on a line with the fistulous track, pass the director through the fistula, allowing the speculum to remain *in situ*. With your curved, sharp pointed bistoury, divide the tissues, and withdraw the speculum, director, and knife all together. You get the following advantages by this method: avoidance of pain to a great extent; a full view of all the parts; and, so far in my hands, the avoidance of tenesmus of the rectum, which is likely to bring on strangury and retention of urine. The two cases in which this method was adopted were of a nervous temperament—cases which would call for an anæsthetic to allay pain consequent on the operation by other methods.

Reports of Hospitals.

ST. THOMAS'S HOSPITAL, LONDON.

A Case of Ulcerative Endocarditis after Rheumatic Fever.

(Reported by A. Clifford Mercer, M.D., Clinical Clerk.)

Comments on the Case by Dr. Bristowe.

Alice H——, aged thirteen years, was admitted into St. Thomas's Hospital, under Dr. Bristowe, April 8, 1879. Her father had suffered from rheumatism, and she herself, five years before, had had two somewhat severe attacks of rheumatic fever, from which, however, her friends believed she had completely recovered. But in February of this year she began to have, when she overexerted herself, dyspnœa and palpitation, which probably were dependent on some rheumatic lesion in her heart.

The illness for which she was admitted into the hospital was her third attack of rheumatic fever, which had begun six weeks previously. The joint-inflammation had first appeared in the knees and ankles, and had then subsided only to appear again in the right knee, and later in the left wrist.

On admission, she was pale, her cheeks were slightly flushed, and she complained of pain in her right knee and left wrist. These joints were red, swollen, and tender. She also suffered from palpitation and dyspnœa, increased by exertion, but from no cardiac pain. The heart's impulse was diffused, but the apex seemed to beat one inch below and one inch external to the left nipple. From this point the precordial dulness extended two inches and a half to the right to the left border of the sternum, and upward to the upper border of the third rib. At the apex was felt a well marked thrill, which was chiefly systolic, but also slightly presystolic. A loud, blowing systolic murmur was heard at the apex, in left axilla, and at the angle of the left scapula. No presystolic murmur could be heard. There was no murmur at the base of the heart nor œdema of the legs. The pulse was 96, regular, soft, and compressible. The remaining organs of the chest and abdomen were examined and found to be natural. The tongue was moist, coated white, the appetite fair, the bowels costive; the urine natural; the temperature 97.4 Fahr., and there was no thirst nor vomiting. In the evening her temperature went up to 102.6 Fahr.

April 9.—She was ordered sod. salicyl., gr. xv.; syrup aurant., ℥ i., aquæ ℥ i., every four hours, milk diet, and beef tea. Her temperature became highest at midnight, when it was 102.6° Fahr.

April 10.—The pain and swelling had disappeared from both the knee and wrist. The temperature reached 102° Fahr. at midnight.

April 14.—Since the 10th there had been a nightly rise of temperature, but no return of joint symptoms. The sod. salicyl. was discontinued, an ounce of quinine mixture† ordered three times a day, and fish added to her diet. Her respirations were 24, and her pulse 132.

April 16.—Haust. sennæ comp. opened the bowels.

April 17.—The febrile temperature had continued, and in the evening it reached 103.4° Fahr. Pain and swelling appeared in the left wrist and right ankle. Sod. salicyl. was ordered again.

April 18.—The temperature was still up, but the pain and swelling disappeared.

April 22.—The temperature had continued high. The urine showed a trace of albumen.

April 25.—There had been a trace of albumen in the urine for several days. Over the apex of the heart was heard a loud, rasping, systolic murmur, and the second sound was not distinguished. Over the left base was heard a loud, rough systolic murmur, made louder by pressure with the stethoscope. The second sound at the base was loud and abrupt. The dulness had increased to the right to the mid-sternal line. The thrill continued without change.

May 2.—The urine contained a trace of albumen.

May 5.—For a day or two the temperature had been nearly normal. Sod. salicyl. was discontinued, and tr. ferr. perchlor., ℥ x.; tr. digital., ℥ v.; infus. quass., ℥ i., were ordered three times a day.

May 6.—She had slight œdema in both feet. The urine contained a twentieth of albumen. She was ordered ferr. et quin. citrat., gr. v.; ex aquæ, t. d. s.; and wine, ℥ ij.

May 20.—For weeks the temperature had been too high by from one to four degrees Fahr., being highest at irregular hours from day to day.

June 6.—The irregular febrile temperature had continued. The patient had become more and more quiet, and was drowsy. The pupils were dilated. She had no pain, no swelling nor rigors. The splenic dulness measured in the axillary line four inches, and extended too far forward. The lower edge of the spleen, on deep inspiration, was felt below the ribs, but it was not tender. The heart-signs remained the same.

* The above is a very fair specimen of the ordinary way of writing about mineral waters.

* Milk diet, St. Thomas's Hospital, consists daily of 12 oz. of bread, ¾ oz. of butter, 1½ pt. of milk, 8 oz. of rice or bread pudding, ¾ pt. of tea, with milk and sugar for breakfast, and ¾ pt. of tea with milk and sugar for tea.

† Mist. quin., St. Thomas's Hospital: quin. sulphat., gr. i.; acid. sulphuric. dil., ℥ ij.; tr. cardamom. comp., ℥ ss.; aquæ destillat., ℥ j.

June 12 and June 18.—She continued to be in the same condition.

June 28.—During the previous night she had often waked and cried with pain in her left side. The splenic dulness remained the same, but the organ was now tender. She continued drowsy—indeed, became very drowsy, the heart-signs remained the same, and the irregular rises in the temperature continued. She was becoming thin, having gradually emaciated since her admission.

The diagnosis had been and still was, rheumatic fever followed by ulcerative endocarditis (involving the mitral valve), with emboli from the heart, in different parts of the body, but especially in the kidney and spleen.

July 14.—For two days she had passed her motions and urine in bed. About 11 A.M. she was noticed to be paralyzed throughout her right side, and to have aphasia. She could not move the right arm or leg. The right eye closed imperfectly. The mouth was drawn to the left, and the tongue protruded to the right. Swallowing was difficult, and she could only whine in answer to questions, though she occasionally seemed to say "no." She saw with both eyes. The pupils were equal and contracted to light.

July 16.—The right arm was slightly better, and to some extent resisted being moved. The right leg was stiff and somewhat flexed. The left arm was tremulous, and she picked at the bedclothes and her lips with her left fingers. The left knee was kept flexed and in constant motion by flexion of the thigh on the abdomen. It was slightly red and swollen, and seemed painful. The aphasia and dysphagia were about the same. She once fairly said "milk," and was only able to swallow a very little wine and nourishment, although she was hungry. She recognized her mother. The pupils were equal, respirations 44, and the pulse 148.

July 17.—There was less motion in the left knee. She became weaker. The respirations were 40, and the pulse 156.

July 18.—The paralytic symptoms remained the same. She sweated, but had no rigors, and appeared moribund. The urine, drawn off by a catheter, had a sp. gr. of 1032, was thick, yellow, and contained copious lithates and much albumen. Since the 14th her temperature had been gradually going up from 101.2° Fahr. to 106.6° Fahr. She died at 7.45 P.M.

July 19.—A *post-mortem* examination was made, when such organs as were involved appeared as follows:

The lungs were œdematous, but otherwise natural.

The pericardium contained four ounces of serous fluid. There was no evidence of pericarditis. The heart weighed nine ounces. Its general appearance was natural. The left ventricle was hypertrophied. The aortic valves were quite healthy. The mitral valve was also for the most part healthy, but its edges here and there had small pendulous excrescences which were broader at their free than at their attached extremity. These had a finely granular, wart-like appearance, and were covered with recent red clot. The internal surface of the left auricle, over a space about the size of a silver half-dollar, was covered with a finely granular and reticulated false membrane, which, after being easily scraped off, left the endocardium thickly covered with minute elevations, which contrasted strongly with the natural smoothness of the rest of the auricular endocardium.

The kidneys weighed seven ounces and a half. The capsules were somewhat adherent, especially here and there over depressions, beneath which were found contracting infarcts. In other places beneath the surface were hard nodules, which on section proved to be conical, more recent infarcts. There were also a considerable number of infarcts scattered through the substance of the kidneys.

The spleen was enlarged and weighed seven ounces. Before it was removed its lower margin extended an inch below the costal arch. It had several large infarcts, one being about an inch and a half in diameter.

The liver on the surface of the right lobe presented a deeply colored area, in extent about two or three square inches, and which extended into the organ about an inch, where it was limited by a wavy, clearly defined border. Apart from the deep coloration, the lobules in this portion appeared natural. In the opinion of Dr. Sharkey, who made the autopsy, this was not an infarct. Dr. Bristowe said he had not traced the vessels in similar livers and could not give a positive opinion, but he had often noticed such a change in the livers of cases in which emboli had been likely to occur.

The brain weighed two pounds and nine ounces. There was some excess of arachnoid fluid, but the convolutions appeared natural. In the left middle cerebral artery, in the fissure of Sylvius, not far from the beginning of the vessel, was found a block consisting of a central, white, firm mass with an irregular surface, surrounded on the proximal and distal sides by a dark red, recent clot. The central portion had evidently the same structure as the vegetations which had been found on the mitral valve. The left corpus striatum was much softened, the lenticular nucleus, especially at the lower and anterior extremity, being considerably less soft than the rest. The optic thalamus was little, if at all softened.

When the paralytic symptoms appeared, Dr. Bristowe's diagnosis was confirmed; it seemed pretty clear that another embolus, a bit of vegetation from the mitral valve, perhaps, had been carried away by the blood-stream and lodged in one of the arteries of the brain, probably the left middle cerebral. After the diagnosis which had been made, the lesions found at the autopsy were very satisfactory, and one of the interesting, and not the least interesting features of the case, is that so correct a diagnosis could be, and was, made during life.

Dr. Bristowe has been kind enough to add the following:

"It is very often difficult or impossible to convey by even very careful notes of a case, the impressions that have been formed by those who have been constantly watching it. In reviewing the above case from time to time down to its termination in death, certain facts and considerations rose, so to speak, to the surface, and gave it a marked individuality, which impressed it deeply on the memory. The patient was a delicate, well-conducted, uncomplaining, interesting-looking little girl; and it was a source of grief to us all that when the rheumatism had subsided, she did not recover her health, as such patients generally do, and as we had a right to expect she would have done. For although she had very obvious heart disease, this had not reacted on the system in such a way as to suggest that she was suffering yet, or was likely to suffer for some time to come, from the usual mechanical consequences of mitral disease; she had no signs of pulmonary congestion, no irregularity of pulse or congestion of surface. But she continued weak, unable to rise from her bed, and with a temperature resembling in great measure that of ordi-

[illegible] to the fever; the only difference probably being that it was more irregular in its type than he is accustomed to. The temperature recorded [illegible] of these of chronic pyæmia, and the belief that she was suffering from so-called "obstructive exhaustion," naturally presented itself to the mind. The view of her state was confirmed as the case went on; first, by the persistence of the fever and weakness; second, by the development of albuminuria, which considering that the mitral disease had not caused other constitutional symptoms, seemed best explained as being the consequence of renal embolism; and third by the enlargement and subsequent tenderness of the spleen, conditions which still more directly pointed to the occurrence of embolism. Her final attack of right hemiplegia with aphasia, obviously the result of a plug in the left middle cerebral artery, only too amply confirmed the diagnosis already arrived at.

"I do not at present recollect to what I attributed the murmur heard during life at the base of the heart. The account of it seems to imply that it was pericardial. But no trace of pericarditis was found [illegible]. I am inclined to think it must have been simply the mitral murmur heard specially loud, as it sometimes is, in the usual situation of an aortic valve murmur.

J. S. B."

Progress of Medical Science.

Simultaneous Ligature of the Femoral Artery and Vein.—Dr. Bouilly, of Paris, reports a case of wound of the femoral artery and vein, in which he was compelled to ligate both vessels simultaneously. The patient, a butcher, 24 years of age, had been stabbed with a knife in the inner side of the thigh, and had lost an immense quantity of blood. A tourniquet had been applied, but the slightest movement of the patient brought on a flow of blood from the wound. After the application of Esmarch's bandage, the wound was enlarged, and both the femoral artery and the femoral vein were found completely divided and free of clots, the artery gaping widely. The lower ends of both vessels had retracted within Hunter's canal, and were only found after careful dissection. Two ligatures were applied on each vessel. The tissues of the limb were greatly infiltrated with blood, which had penetrated along the sheath of the vessels into the popliteal space. As much of this blood as possible was squeezed out by gentle manipulations, and the wound was dressed antiseptically. The patient rallied well after the operation, but the case was reported too soon to give the ultimate result.—*Gazette Médicale de Paris*, Sept. 27, 1879.

Bigelow's Operation on a Patient Eighty-eight Years of Age.—Mr. Teevan reports a case of lithotripsy on a patient eighty-eight years of age. The urine showed no evidence of renal disease, and there was nothing in the heart or lungs to contraindicate an operation. Accordingly, on September 13th, the patient was put under the influence of ether, and in the space of twenty minutes a lithic-acid stone, measuring one inch and a quarter by one inch, was pulverized and evacuated. The calculus was excessively hard, and the noise produced by breaking up the smallest fragment was audible to all present. Three lithotrites were used, being introduced eight times in all. The evacuating tube, No. 26, which slipped in with ease, was used three times. There was a little blood lost during the operation, and for four days afterward the urine was coagulous. Much smarting was experienced for forty-eight hours whenever the water passed, but it was entirely confined to the pendulous portion of the urethra, and no excoriation was there. The slightest pain or tenderness in the hypogastric region. The highest temperature recorded was on the morning of the 15th, when it reached 101° F., the pulse being 98. The patient's progress after the operation was one of gradual improvement. The urine began to clear on the fifth day, the nights were good and the appetite keen, and on September 24th he left his bed, to which he had been confined for three months. Five days later he went for a drive. On October the 4th he was absolutely free from all pain, and was very cheerful and happy. He could hold his urine for four hours, and get a good night's rest. The urine was clear, and there was no phosphatic deposit.—*The Boston Med. and Surg. Journ.*

Acute Osteomyelitis, with Special Reference to its Causes.—The following are the most important points of a very instructive paper, by Kocher, on acute inflammation of bones. Acute osteomyelitis is produced, like other inflammations, by infection, but still it is not a *specific* infectious disease. His observations were made on 52 cases, of which, however, only 30 were positively demonstrated to be cases of osteomyelitis acuta. Of these 30 cases, 26 were males, and 4 females, all were between 8 and 25 years of age. In a few of the cases, the patients had caught cold or had received an injury; in seven cases the osteomyelitis was *secondary*, having developed in one in the course of a typhus, and in the others during the existence of inflammatory processes in different parts of the body. From these last cases Kocher deduced the conclusion that osteomyelitis is excited by the action of agents which may exist for some time in the body without giving rise to the general symptoms of infection of the bones. The bones which grow the most rapidly are the most frequently affected; hence, certain spots, such as the lower end of the femur and the upper end of the tibia, present a special *anatomical predisposition*.

In the experiments on animals several methods were employed: 1. Agents which exerted a physical or a chemical action (liquor ammonii, tinct. cantharides, ol. crotonis) were tried with antiseptic precautions. 2. Decomposing fluids and pathological secretions were injected. 3. The first method was combined with the internal administration of putrid matters. The first method, as a rule, failed, while the third succeeded. True metastases in other organs were not observed. Hence it follows, that under some circumstances irritant matters may pass from the intestinal canal into the bony marrow, and give rise to osteomyelitis.

In acute osteomyelitis, disturbances of function of the adjacent joints often precede the other symptoms; purulent effusions into the joints may also occur early. If the abscess be opened, the epiphysis will often be found separated. The pus frequently contains free fat. It is a remarkable fact that the lymph-glands are only slightly implicated. The fever is usually high from the beginning, without morning remissions, and sometimes remains high for some days after the abscess has been opened. Recovery, when it occurs, is greatly protracted by the necrosis, which almost always occurs. Death occurs either from pyæmia multiplex acuta, with metastases in the lungs, kidneys and heart, or from the development

of *secondary* inflammations in some internal organs (pyelo-nephritis, pleurisy, etc.), after the original bone disease has begun to improve. There is also danger of septicæmia after the abscesses have opened.

Kocher divides the affection into three stages from a pathologico-anatomical standpoint:

1. The stage of purulent infiltration of the medulla, with the formation of isolated foci of disease; from these the pus extends to the periosteum and synovial membrane.

2. The stage of formation of abscesses and sequestra in the cortical and spongy tissues, and in the epiphyses.

3. The stage of reparation. The osteomyelitis becomes chronic in the form of chronic osteitis, or of abscess of bone; the former terminates in osteosclerosis or in osteoporosis.

In the way of treatment, Kocher recommends the salicylate of soda in doses of ʒ iss. to ʒ vj. pro die, or if that will not be borne, alcohol in large quantities. Locally, he advises the evacuation of the pus by puncture (not by incision, so as to avoid the danger of a new point of infection), and the injection of a five per cent. solution of carbolic acid, one or more hypodermic syringefuls daily. The fluid should be injected not alone into the abscess, but also by means of hollow drills into the medulla. If the abscess have already broken, free incisions should be made down to the periosteum, and strict antiseptic dressing employed. If the joint be involved it can sometimes be saved by washing it out with a five per cent. solution of carbolic acid, but amputation will often be necessary.—*Centralblatt für Chirurgie*, No. 39, 1879.

Paroxysmal Hæmaturia.—A case of paroxysmal hæmaturia is reported by Mr. John E. Neale, the notes of which illustrate many interesting features connected with this rare condition of the urine. The onset of the disease seemed to be clearly traceable to an injury of the spine, whereas in most instances it has been ascribed to a malarial origin, or to exposure to cold and wet. Counter-irritation and quinine had apparently a great control over the paroxysms, they entirely disappearing for the space of three months after treatment was begun, although for the four months which elapsed between the receipt of the injury and his admission into the hospital, there had never been an interval of forty-eight hours between the attacks. Like most of these cases the paroxysm never occurred during the night, lasted only a few hours, while other symptoms which have been observed—viz., retching, vomiting, pains in various parts of the body, and retraction of the testicle—were always absent. The color of the urine and the absence of the usual "smoky" appearance, would immediately draw attention to the difference between this condition of the urine and ordinary hæmaturia, while its microscopical and spectroscopical characters give to it diagnostic signs, viz., the complete absence of red blood-corpuscles, a deposit consisting principally of amorphous granular matter (urates), numerous crystals of oxalate of lime, a few hæmoglobin crystals, together with pigmented masses exactly resembling those found in the spleen, liver, and thymus gland. The coloring of the urine was not due to any solution of hæmoglobin, nor to *hæmatin*, for this latter substance not only has a definite spectrum of its own, but only exists in alkaline solutions of hæmoglobin, whereas the urine in this case was always acid. Neither was it due to the presence of *hæmin*, this body always occurring in a definite, easily recognizable crystalline form. The pigmented masses observed under the microscope resembled very closely similar ones seen in the spleen, liver, old collections of blood, etc., and known as *hæmatoidin*, but where this sudden destruction of the red corpuscles and rapid transformation of the coloring matter take place is not yet capable of proof.—*The Lancet*, Nov. 15, 1879.

Citrate of Caffein.—In the January number of *The Practitioner*, Dr. Lewis Shapter recorded some observations on the use of citrate of caffein as a diuretic in cardiac dropsy. He now directs attention to its therapeutic position as a sedative and anodyne in those conditions of mental anxiety and exhaustion, and neuralgia associated with well-defined arterial relaxation and passive venous engorgement. The drug probably acts through the sympathetic system upon the heart and vessels, and it may be confidently looked to (1), to induce co-ordinate action of the heart; (2), to increase vascular pressure, and promote free and almost instantaneous diuresis; and (3), to stimulate a heart gradually being relieved of its source of embarrassment to more vigorous and forcible contraction. In addition to the diuretic and cardiac action of caffein, there is a secondary effect which is scarcely less valuable. The arterial relaxation and venous engorgement of the cerebral vascular system induce a state of malnutrition or impoverishment of the cerebral cells, resulting in a morbid state of activity. By restoring the balance of the circulation, the effete products of the cells are carried off, fresh supplies of blood brought forward, and, as a consequence, the first quiet night with refreshing sleep is passed under the influence of caffein. In migraine it has been used with a certain amount of success, which would be explained by the theory of M. Hervey, that migraine is an arterial neurosis taking origin in the great sympathetic nerves, and having its seat in the nervous filaments accompanying the arteries, the result being dilatation (or perhaps relaxation) of the vessels. It should be administered in sufficient doses, three grains of the nitrate being the minimum dose. In cases associated with pain or asthenic mental excitement the dose will probably have to be increased, and be frequently repeated; but in cases of heart disease, where it will serve as an adjuvant to digitalis, three to five grains given every night will usually be found sufficient to establish free diuresis, and induce that proper state of nutrition from which sleep, as not the least of the important ends to be attained, may be expected.—*Brain*, October, 1879.

Programme of the British Medical Association for 1880.—The next annual meeting of the British Medical Association will be held at Cambridge, under the presidency of Professor Humphrey. The address in medicine will be delivered by Dr. Bradbury, that in surgery by Mr. Timothy Holmes, and that in physiology by Dr. Michael Foster. The sections will be presided over by Dr. Paget, of Cambridge, in medicine; Mr. Savory in surgery; Professor Rutherford, of Edinburgh, in physiology; Dr. Crichton Browne in psychology; Mr. Bowman in ophthalmology; Sir James Paget in pathology. Each president will deliver an address in opening his section. The association is growing larger each year. Branches have recently been established in Jamaica and in Australia. It is probable that a branch will be organized soon in Canada. The Indian branch is to be reorganized and revived.

THE MEDICAL RECORD:

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MEDICAL FEES.

THE medical fee question is one which has such an interest attached to it that there are few, if any, who have not given it, at some time in their professional career, their earnest attention. It is not, then, a matter of surprise that correspondence has been invited by our remarks on the subject in our former issue. We are inclined to believe the comments made in letters, to which we refer, so nearly express the general sentiment of the profession concerning collections, that we are safe in taking them as texts for more extended remarks.

It would appear scarcely fair to charge the doctor himself for much of the trouble which he experiences in collecting his fees; but such a truth becomes evident to every one who pauses to look at the situation.

In the first place, as one of our correspondents suggests, we are not careful enough in our accounts, we do not set a definite value on our services—in fact, have no absolute standard to guide us in a given grade of cases. Our prices have a wide range of fluctuation. On one extreme we strain a point to believe that many of our patients are too poor to pay anything, and on the other extreme we are inclined to stretch our consciences in charging the highest possible price to the rich. The consequence is that both rich and poor look upon the doctor's bill as a variable quantity, subject to discussion and dicker, and, as a rule, pay the amount under protest. The rich man is usually as apt at this business as his poorer neighbor. He is not content to pay more than other people, simply because he has a larger income, and is apt to look upon the doctor as taking advantage of the circumstance. Hence, he has an excuse for asking a reduction. The willingness with which the physician listens to these appeals, and makes reductions accordingly, only proves the more conclusively that the services rendered are not worth the original price charged therefor. In fact, the wider appear the margin for profit the less exact is the real value of the services they represent. Hence it is that the so-called lumping of accounts has become a fashion.

In the second place, as has also been suggested by our correspondent the practitioner should keep accurate accounts of his visits. They should represent so much actual hard work performed. He responds to those calls sometimes at great disadvantage to himself, and often at a sacrifice of rest and sleep. He, as a business man, should expect to be paid for each and every one of them.

The patient has no more right to demand the reduction of the bill after these services have been performed than he has of asking that they be performed for nothing at the start. But, unfortunately for the poor doctor, he is no business man, and is too apt to forget what he really has done in his desire to accommodate his patron with what the latter may call "a reasonable bill."

Again, viewed in a purely business light, each physician should not only make his own standard of prices, keep exact accounts, but insist upon full payment. It is always better to make the patient who is unable to pay the full amount a present of the balance due than to deduct the same from the bill. A receipt for the full account of the bill, even if it represents only one half the sum of the same, proves to the patient that the services are worth none the less because he cannot pay for them in full. If such a rule were adopted, medical services would have a definite value, which could not be questioned by any and every one who might think that he is doing the doctor a service by paying his bill at all.

Of course it would be absurd to charge the poor man a bill he never can pay. His circumstances must be taken into account, and the amount of the bill regulated accordingly. When once the sum is fixed, however, it should remain so, and partial payments should either be credited on account or the bill receipted for the same in full. We should fix a low rate for the poor, not because our services to them are less valuable than to the rich, but because they are unable to pay more. The same principle should hold good regarding our bills to the wealthy. The latter should pay the full value of our services, but no more.

It is right to assume that the rich only can afford to pay the physician his just dues—to give a fair equivalent in money for services rendered. But this idea cannot in justice be carried to the extent of making our charges extravagant, or of laying us open to the suspicion of extortion. No one better than the attending physician knows how much his well-to-do patient should pay, and he should fix the sum as a definite one, and insist, as a matter of principle, that no deduction on account of the real value of services should

be allowed. If such rules were followed out in the proper spirit, the patient would not be tempted so often to ask for reductions, neither would the physician be persuaded to grant them, thus placing a mere nominal value upon his professional opinions.

In regard to itemizing bills, as recommended, this is not always possible, especially when the services are varied in character and consume variable periods of time. It is advisable, however, to fix a value upon each particular visit at the time of making the same. When such a practice is carried out there will be no trouble of giving the details in the bills, if such be desired. This is certainly the accurate and business-like way not only of keeping accounts, but of rendering them, and avoids that guessing at amounts at the end of the year, which is alike disadvantageous to the patient and the physician.

The recommendation of another of our correspondents to send monthly accounts to our patients is worthy of consideration. There is no doubting the fact that the longer bills are allowed to run the larger they are apt to become, and the more unwillingly are they paid. It is a bad fashion which sanctions the presentation of accounts not oftener than every six months. The well-to-do practitioner does so, and his impecunious brother is conventionally compelled to to do likewise. Somehow or other it is considered undignified for the physician to be in any seeming hurry to present his account. It must consequently be more genteel for him to owe his butcher and baker than ask money of those who owe him. There is a false modesty in this that is ridiculous to the business man. The only one who suffers by it in the long run is the doctor himself. No man who has been in practice need be told that money should never be refused when it is offered; and yet he is, by the half-yearly and yearly system of sending out bills, practically encouraging the patient in becoming a delinquent debtor. The best time to present the bill is when the services are terminated, and, if the patient is unable to pay at that time, it is better that he should think the delay was due to his carelessness rather than to the want of ordinary business tact in his medical attendant.

FURTHER EXPERT TESTIMONY AT THE HAYDEN TRIAL.

Further expert testimony has recently been put in by the defence at the Hayden trial, and has furnished statements of considerable interest. In our previous comments on this trial, we mentioned that the three principal points upon which the testimony bore were: the symptoms and signs which may be produced by the presence of a small ovarian cyst; the tests for blood; and the possibility of distinguishing different samples of arsenic, by the proportion of crystals to amorphous particles seen under the microscope.

The victim, Mary Stannard, was found to have a small ovarian cyst, about three-fourths of an inch in diameter. In was claimed by the prosecution that this had given rise to symptoms of pregnancy, and that she had been killed by the defendant in order to avoid the public exposure which her supposed pregnancy would cause.

It will at once appear that the idea of a cyst, so small in size, producing symptoms of pregnancy, can only be characterized as absurd. It cannot, perhaps, be absolutely denied that such a tumor may produce some symptoms, since few things can be absolutely denied in medicine. But that such remote possibility of some ovarian irritation should be taken as the basis of a theory of prosecution, shows alike a poverty of theories and of medical knowledge. Such tumors are not very unfrequently found at the post-mortem table, no evidence of their presence having previously been given. They are even found before the age of puberty, and may sometimes remain stationary and undeveloped. The ingenuity of an imaginative legal mind may make it appear probable to the jury, that because the young woman had a small cyst, therefore she had the symptoms of pregnancy; but we do not see how they secured medical experts to help them along. She might have been hysterical, she might have been an excellent case for a gynecologist and a medicated pessary; but she could only by the rarest coincidence have furnished the signs of pregnancy. To this effect the experts for the defence testified.

The counter-testimony, in regard to the detection of various samples of arsenic, was not very extended. It was asserted that, owing to peculiarities in the grinding of arsenic, the same manufactory might send out lots in which the proportion of crystals would vary. On the whole it seems likely that, as we have stated before, the determination of the source of arsenic by its microscopical appearance can rarely be a certain one. The value of the discovery, therefore, of a varying proportion of crystals in different lots, must, from a medico-legal point, be quite limited.

The question of the tests for blood was testified upon at considerable length. The experts secured for the defence were unanimously positive that human blood could only be distinguished from that of certain other mammals under rare and very favorable conditions, if at all. This was in direct contradiction to the evidence for the prosecution. Dr. Woodward testified that the size of human blood-corpuscles in different persons was as variable as that of the individual; and that the size also varied greatly even in the same animal. The range was said to be greater in disease and in the young. This variability applied not only to man, but the lower mammals. It would take, said the witness, forty-two years to find the true average size of the corpuscles of any animal. Alluding to the history of such measurements, the

great variance of opinion during different periods was shown. Thus Gulliver, in 1878, made the average diameter 1-3250 of an inch; Hewson in 1864 found it to be 1-3000 of an inch; Wharton Jones, 1-3000 to 1-4000; Kölliker, 1-3200 to 1-4000 of an inch. The most recent authoritative measurements make the average diameter 1-3620 of an inch. Dr. Woodward took, in general, a very positive view of the case. His statements are, however, to a great extent misleading. When it was first undertaken to measure blood-corpuscles, there was no authorized definite standard for the micrometer; nor was it until recently that the lack of a definite standard has been overcome. The variation in measurements, therefore, by different observers, may indicate variation in micrometers rather than in the corpuscles. An examination of the different sets of measurements will show a substantial agreement as to the relative size of human corpuscles, compared with that of other animals. The statements concerning the great variability in the size of the blood-corpuscles are not in accordance with those of the majority of microscopists. Physiologists state that the red blood-corpuscle varies less in size than other anatomical elements. Kölliker asserts that ninety-five per cent. are of the same size. It is generally agreed that man's red blood-corpuscles are larger than those of any of the ordinary domestic animals from which distinction has generally to be made.

In the present case the defendant testified that he had killed chickens with the knife in whose notch corpuscles were found. Since it would be comparatively easy to distinguish the oval corpuscles of the fowl, we were inclined to lay some weight on the testimony of the experts for the prosecution. The impression given by Dr. Woodward as to the exceeding vagueness and inaccuracy of microscopic measurements was unjustifiably strong.

The possibility of distinguishing, under proper conditions, the human blood from that of other animals, cannot be denied. The possibility of being able to do it, however, in any particular case with sufficient certainty to swear away a life, is another thing entirely, and one in which we do not believe. In the present case, although the scalpel discovered an ovarian tumor, and the microscope arsenical crystals, and possibly human blood, there was nothing established by the expert testimony strong enough to warrant a verdict of guilty.

DEATH FROM CHLOROFORM IN A DENTIST'S CHAIR.

It is our painful duty to record another death from chloroform in a dentist's chair. The patient was a young man, 21 years of age, and the place where the accident occurred was St. Johnsbury, Vt. No details are given—simply that death was the result of the administration of chloroform. To most physicians such a statement is enough to bring to mind the usual relations of cause and effect in these cases, and to engender a growing conviction that this dangerous anæsthetic should be banished from the dental operating room. In view of the number of deaths from chloroform during dental operations, and the usual distressing circumstances which attend them, it is to be hoped that any dentist should, even under the most extraordinary circumstances, run any risks with his patient. We are not prepared to say that the dentist did not use all the ordinary precautions in relation to anæsthesia. Probably he did. But he used trichloride chloroform as the agent, and for this he is certainly in the highest degree culpable.

THE CARE OF THE POOR.

In a recent report of the Society for Improving the Condition of the Poor, it is stated that nearly fifty per cent. of the applications for relief are unworthy of the name. The exact figures are 42 per cent. The system of relief comprises a personal examination of the claims of each applicant, a visit to his abode, and any other means which may be considered necessary to guard against misrepresentations. Consequently, the statistics may be considered trustworthy. Possibly such figures may serve to point a moral regarding dispensary relief, and show perhaps how many are treated for nothing who do not deserve such service. At least, the adoption of similar means of inspection would tend to lessen the number of medical paupers.

SURGEONS IN PUBLIC JOURNALS.

The success of Dr. Keith in performing ovariotomy has recently been very extraordinary. He reports seventy successive operations without a death. This and his previous record have secured for him a remarkable prominence. An article appeared in the *Scotsman*, a leading lay journal, not long ago, giving some account of the operation of ovariotomy, reciting the surgical performances of Dr. Keith, and sounding the praises of that eminent gentleman very highly. There can be no doubt at all that nothing was said in regard to Dr. Keith's character, accomplishments, or history, which is not strictly true, and the *Scotsman* very properly took much credit to its country for having produced a man capable of rendering such services to humanity.

It does seem, on first thought, only just that the great advances which surgery and medicine are making should at times be announced to the general public, even though it cannot be done without referring to particular persons. Nevertheless, we are of opinion that such a publication as appeared in the *Scotsman* is neither in good taste nor for the true benefit of the profession. It is always difficult to show the laity what really constitutes scientific prog-

ress, or to teach them what is true and what factitious worth. A medical man does not get credit in proportion to his merits. An incision of the frænum linguæ, or the happy administration of a carminative, may send one at once to giddy eminence or lay the foundation of a life-long reputation. On account of such facts, together with the liability to jealousies and hard-feeling, the profession has always deprecated, and its ethics have forbidden, any public announcement of particular medical or surgical attainments. Further, it is difficult for any one who is acquainted with the way in which eminent operators look out for their "record," to feel unalloyed triumph over the announcement of an extraordinary number of consecutive successful cases. Was there no selection, no turning over of doubtful cases, no refusal to give a patient the very last chance? Have we a genius who never fails in diagnosis, who can foresee every contingency and meet every complication with unerring judgment? If so, then humanity should rejoice; but it is a wide experience which finds such men.

THE ANATOMICAL USES OF THE CAT.

It was philanthropic as well as practical on the part of Dr. Burt G. Wilder to suggest the more extended use of the cat for dissecting purposes. It seems to be well admitted that cats are increasing faster, proportionately, than the population which supports them. And, applying the doctrines of Malthus, the cat rises to a numerical prominence in the civilization of the future which is quite alarming. The cat in moderation is a useful addition to the household, and gives, we may say, rotundity and completeness to the domestic life. But cats in excess are annoying, and the proposal to make them the subjects of anatomical study by medical students is a welcome and judicious one.

The anatomy of the cat is very much like that of man; the resemblance being closer than that of most other domestic animals. The viscera have nearly the same arrangement; the brain has the primary divisions, and even some of the fissures which are found in man. Most of the cranial nerves may be easily discovered. The bones and many of the muscles can be identified from a knowledge of Gray or Quain alone.

There are many drawbacks to the successful study of anatomy upon the human body. The expense is considerable, the subject may be bad, progress is always slow, and there is, as a rule, very little systematic study in connection with the work. Dissection and examination of the viscera are greatly neglected, and yet they are the most important parts for the majority of students. It is very likely, therefore, that preliminary dissections of an animal so easily obtained and cared for as the cat would be of great help to the student. While studying under a preceptor or while pursuing any course of preliminary training, he could easily occupy part of his time in such anatomical investigations. He would thus acquire a practical familiarity with the use of the knives, the appearance of the organs and tissues, and the names and general arrangement of most of the structures of the human body. An interest in comparative anatomy would also be often excited, and such an interest is always valuable as stimulating to more earnest and thorough investigation.

The numerical decrease of cats and the quantitative increase of anatomical knowledge are two things which it would be desirable to bring about. We hope that undue stress has not been laid upon the former.

THE COLOR OF OUR CLOTHES.

A very learned discussion has been given by the *Lancet* on the subject of colors and the caloric properties of clothes. It was ingeniously argued that, as white is the best reflector of heat, it is therefore the worst conductor of the same. Light clothes are, therefore, the warmer, and should be more universally adopted in the winter months. This somewhat arbitrary logic was enforced by an illustration in natural history, which does not show any deep or varied acquaintance with that department of human knowledge. The polar bear was instanced as an evidence that nature coincided with the views of the editorial annotator. Now, since for hundreds of years it has been the practice to wear dark clothes in winter, and light clothes in summer, we may presume that there is a good practical reason at the bottom for so doing. At any rate, it has been shown by Tyndall, that although the color of a substance may materially affect the rate with which it will become heated by the luminous heat of the sun, yet color has no effect on the radiation of non-luminous heat. Such kind of heat is being thrown off from our bodies, and the amount, therefore, thus thrown off depends on the conductivity, not the color, of the garments. Dark clothes absorb heat from the sun and do not affect the radiation of heat from the body. The popular habits in regard to clothes are thus, as might be expected, justified by the investigations of science.

As to the polar bear, there are other reasons for explaining the whiteness of his fur. A beast that roams for prey upon an iceberg or along snowy shores would have little chance of succeeding in its predatory inclinations if it were made conspicuous with a dark coat.

It will be found that animals which inhabit the tropics have, as a rule, rather light furs. It is in the temperate region, where the snow is only temporary, yet where low temperatures often prevail for some time, that the average color is darkest.

THE DECLINE OF IRIDECTOMY.

In a paper by Dr. De Wecker, read in the Ophthalmological Section of the late meeting of the British

...Medical Association, it was stated that iridectomy had been performed in forty-eight cases for the cure of simple chronic glaucoma. The results had all of them been good. This subject of the selection of iridectomy for iridectomy has recently been discussed at length before the Surgical Society of Ireland. Mr. Swanzy read a paper in which he advocated the method of treatment, as furnishing much better results than iridectomy, in simple chronic glaucoma. The general tone of the discussion that followed suggested a waning confidence in iridectomy, and it appears that this much lauded operation is ceasing to be so much in fashion. The theories on which it was founded have always been somewhat vague and imperfectly proved; they necessarily differed in accordance with the views taken of the pathology of glaucoma. An increased delicateness has of late been given to the latter, and this fact helps to a more intelligent line of conduct in operating. The prominent symptom in glaucoma is an increased hardness of the eyeball, due to its being overfull. It has been shown that the chief point of escape for effete intraocular fluids is at the angle of the anterior chamber, passing outward through the ligamentum pectinatum into the canal of Schlemm. It has been further shown that in glaucoma this way of exit is obstructed by the adhesion of the periphery of the iris to the periphery of the cornea. Now De Wecker has long contended that the establishment of a cicatrix at the corneo-sclerotic margin offers a new chance for the transudation of the intra-ocular fluids, thus relieving the tension. The microscope discloses that in these cicatrices the margins are not intimately opposed, but that there is a semi transparent substance interposed, which probably allows the passage of the intraocular fluids.

This theory is plausible enough, but must await further facts for its confirmation. In the meanwhile it will be interesting to observe whether iridectomy is to be largely laid away among other ephemeral fancies of enthusiastic specialists. It is pretty certain, at least, that it will not be performed as often in the future as in the past fifteen or twenty years.

THE ENLARGEMENT OF THE MEDICAL RECORD.

With the present number the MEDICAL RECORD will be again enlarged by four pages of reading matter in each number. This increase seems to be warranted, not only on account of the expansion of the subscription list, but by the extra number of advertising sheets which have been added to the journal. We shall thus be enabled to give to our readers over two hundred pages more in the year than they have been accustomed to receive, and without extra expense to them. With the increased facilities which these additional pages will afford, we hope to make the RECORD more and more interesting and useful to the general practitioner.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY

Stated Meeting, Dec. 10, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

CANCER OF AXILLARY GLANDS.

DR. POST exhibited specimens of cancerous degeneration of the axillary glands, removed by operation from a patient upon whom, fifteen months before, amputation of the breast had been performed for the same disease affecting that organ. The growth was in close proximity to the axillary vessels, and a very careful dissection was necessary.

A FINGER FOR A NOSE.

He also exhibited a nail with matrix attached, which he had removed from the ring finger of the patient upon whom he had operated for lupus of the face. The parts had nearly healed, and it was his intention to construct a nose with the ring finger, which he intended to amputate for the purpose. As a preliminary procedure, in such an operation, the nail had been removed.

TUMOR OF UPPER JAW.

DR. POST also presented a tumor of the upper jaw, removed by operation in the New York Hospital, from a patient aged sixty years. The growth originated in the alveolar process, and extended to the antrum, occupying its lower part but not expanding its walls. The lower portion of the maxilla was removed with the tumor, leaving the lower margin of the orbit intact. Blood was prevented from entering the larynx by keeping the head in a dependent position over the edge of the table.

DR. JANEWAY exhibited an interesting tumor of the pons, of large size, which he had diagnosticated before death.

THROMBOSIS OF HEART AS A CAUSE OF DEATH.

He also exhibited the heart and lungs of a patient who had died with cardiac thrombosis. The right lung was the seat of lobular pneumonia with pleurisy, serous and adhesive, and whispering pectoriloquy, with bronchophony and vocal fremitus, were heard below the level of the fluid. Dr. Janeway believed that the cause of death was primarily thrombosis of the heart. At the autopsy, the clot was soft and well formed.

DR. LOOMIS remarked that the author who gave the clearest explanation for the existence of vocal fremitus, bronchial breathing, and bronchophony in connection with pleural effusion, was Dr. Stokes. That gentleman said that in such cases there would always be found compressed lung, but not compressed bronchial tubes. So long as the bronchial tubes remained pervious, and extended below the level of the fluid, the physical signs referred to would be heard. The existence of pectoriloquy depended a great deal on the character of the voice, some patients giving it through healthy lung. He thought that all vocal signs were very unreliable.

Dr. Loomis did not believe that the thrombosis was the primary cause of death. The clot was recent, soft, and offered no marked obstruction to the blood-current.

Dr. Janeway contended that only the outer portion of the clot was soft, and that, by its rapid formation, it clogged the valves and arrested the heart's action.

THE SKIN IN HYPODERMIC INJECTIONS.

Dr. Amidon exhibited several sections of skin showing the effects of hypodermic injections. He had selected, for purposes of observation, patients in a moribund condition, and had administered hypodermic injection of solutions of indigo. In such as possessed very little adipose tissue, the coloring-matter collected in a plane immediately below the level of the true skin, and in fat subjects the injection diffused itself widely throughout the cellular tissue of the interlobular spaces. He referred, in this connection, to some experiments which he had made with a view of determining whether hypodermic medicines were absorbed through the lymphatic or through the circulatory system. He had found that the physiological effects of muriate of pilocarpine were manifested just as quickly, whether the injection was made at the ankle or supra-clavicular space. This being the case, he concluded that the injection was absorbed by the blood. If there had been a difference as to time in favor of the injection into the supra-clavicular space, as compared with that of the ankle, the lymphatic system would seem to have been the factor in the absorbing process.

PYÆMIA WITH THE CLINICAL HISTORY OF SEPTICÆMIA.

Dr. Loomis presented the heart, uterus, and kidneys, taken from a young woman aged twenty-one years, who was admitted into Bellevue on the 2d of December. She stated that she had always been well up to the time of her present illness, with the exception of acute articular rheumatism two years before, which, however, was not accompanied or followed by any cardiac symptoms. She had, at that time, been married about four months. She menstruated once after her marriage. Two weeks before her admission she began to have a discharge of blood from her vagina, which continued about twenty-four hours, when she began to have pains in her back and other symptoms of miscarriage. The second day after the pains commenced, her physician removed an ovum and portion of the placenta by means of the uterine forceps. The mass removed was offensive in odor. A moderate flow continued for two or three days, and was normal in character. The patient was able to be up on the third day. On the evening of that day she had a long and severe chill, followed by a rapid rise in temperature. On the fourth day these symptoms were repeated, and the fever continued. She became somewhat delirious. Ten days after the discharge of the ovum she was admitted to Bellevue. At the time of admission her temperature was 105° F., her face was flushed, her pulse was 120 and feeble. She was restless, delirious, and lethargic, but could be aroused, and then would answer questions intelligently. She was given antiperiodic doses of quinine, and the following morning her temperature was reduced to 101°. She was then more lethargic than the night before, and vomited for the first time. Vomiting then became constant. She complained of no pain and presented very much the appearance of a patient with acute mania, yet she had no desire to get out of bed, nor did she require restraint. She was constantly mumbling to herself, but would not answer questions, although she seemed to understand their import. Before noon her temperature rose again, reaching 105° F. Although she was placed upon a water-bed, treated with cold, with large doses of quinine and salicine, no impression was made upon her temperature, and she died the third day after admission. Toward the last her pulse became more frequent than before. She had no symptoms of pulmonary disease, no cough nor expectoration. There was a blowing murmur heard with the first sound, at the base of the heart. It was a question whether this murmur was due to acute changes, or was due to endocarditis, which might have been developed during her attack of rheumatism. She died in the condition of coma, into which she passed twelve hours before her death.

At the autopsy the uterus, as was expected, was found enlarged. In its upper and anterior portion it contained a small fragment of placenta. Just within the internal os was a slough which penetrated deeply into the uterine structure. There were no evidences of inflammation in the region of the uterus, no pus in the veins, nor thrombi. Infarctions were found in the kidneys. In the spleen there were a number of infarctions, some of them having undergone softening. There were evidences of old endocarditis in the left heart near the aortic valves. There were extravasations in the substance of the heart, and at one point were evidences of myocarditis. Some of the vessels of the spleen were found completely obstructed by bacteria. Bacteria were also found in a number of other organs. The point of interest to Dr. Loomis was the occurrence of pyæmia, with the clinical history of septicæmia. The dates were fixed for determining the length of time which elapsed between the removal of the fatty placenta and the onset of constitutional symptoms.

A discussion then ensued bearing upon the question whether the bacteria were the cause or effect of the pathological changes, but as no conclusion was arrived at, the Society went into Executive Session.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, Dec. 9, 1879.

Dr. H. B. Sands, President, in the Chair.

The Society was called to order at 8.15 P.M., and the minutes of the last stated meeting were read by the secretary, Dr. Chas. McBurney.

EXTIRPATION OF THE LARYNX.

Dr. Lange read a paper on extirpation of the larynx, in which he gave a résumé of the literature of the subject, and reported a successful case operated upon in October, 1879. The patient was doing very well, and was able, by the aid of an apparatus, to swallow thick soup.

CANCER OF THE LARYNX—SUCCESSFUL REMOVAL—MALIGNANT DISEASE OF THE SUPRA-RENAL CAPSULES, KIDNEY, AND URETER.

The President presented a larynx from which a cancerous growth had been successfully removed by thyrotomy. The specimen was obtained from the body of a woman who, when operated upon, was thirty years of age. She was a patient in St. Luke's Hospital, and the operation was performed in 1863, for the removal of a cancer springing from the left ventricle of the larynx. She was sent to the hospital on account of aphonia, and, not being familiar with laryngoscopic manipulation, he asked Dr. Simrock to examine the case, who discovered a laryngeal growth that at first seemed to be attached by a narrow pedi-

duct to the floor of the left ventricle. After repeated examinations, however, both Dr. Sturgis and Dr. Sands became convinced that it was not a pedunculated but a sessile tumor of considerable size, and projecting toward the axis of the larynx. Many years a portion of the growth was removed, and, when examined microscopically, it was found to be a sarcoma. Dr. Sturgis, therefore, abandoned the idea of attempting to remove it by means of a snare, and the woman came under Dr. Sands's care at St. Luke's Hospital, where, assisted by Dr. Markoe and the other surgeons of the hospital, he removed the tumor by splitting the larynx in the median line over the edges of the wound, in order to cut off by the scissors that portion which projected beyond the plane of the vocal cords. The remaining portion was destroyed by means of the actual cautery.

The patient made a rapid recovery, and, to a considerable degree, recovered her voice. She remained in excellent health from February, 1878, until October, 1878, when she came to Dr. Sands, complaining of weakness, had a cachectic appearance, and although he was not able to make a positive diagnosis, he inferred that she had malignant disease of some organ in the abdominal cavity. She then entered the New York Hospital; no positive diagnosis was made, although, from the peculiar appearance of the skin, disease of the supra-renal capsule was suspected, and at the end of twenty-two months after the operation she died.

At autopsy, both supra-renal capsules were found diseased, one being enlarged so as to measure, in its long diameter, three and a half inches, and weigh two ounces. There were also deposits of new growth in the left kidney, and the entire left ureter was converted into an almost solid cord, its calibre being only sufficient to admit a small probe. Microscopical examination of the new growth, found in various places, revealed cell-formation differing from that found in the larynx. In the larynx the tumor contained alveoli filled with epithelial cells, while the specimens removed from the abdominal cavity contained spindle-shaped cells such as were, at that time, supposed to be characteristic of recurrent fibroid.

After the operation was performed, the patient made no complaint concerning the larynx, nor was any recurrent growth found in the larynx at the autopsy.

NECROSIS OF THE RADIUS.

Dr. James L. Little presented a sequestrum representing almost the entire length of the radius, and removed from a child four years of age. About four months ago the child twisted its arm, and the injury was followed by abscess and permanent sinuses. There was a well-formed involucrum, and two openings, one near the elbow, and the other near the wrist-joint. There was no loss of bony substance, except the portion removed. The incision extended almost the entire length of the forearm. The epiphysis remained.

Dr. Weir asked why so long an incision was made.

Dr. Little replied that he began the incision at the upper extremity of the radius, where the abscess pointed first, and, continuing it down to about the middle of the forearm, found that the burrowing had extended nearly down to the wrist. No special hemorrhage occurred.

CYSTIC DEGENERATION OF THE APPENDIX VERMIFORMIS.

Dr. Robert F. Weir reported a case of cystic degeneration of the appendix vermiformis, occurring in a patient from Savannah (ga., at 55 years, who came to him in October, 1879, with a tumor situated in the right iliac fossa. There was a great swelling above the crest of the ilium, and an opening near the posterior part of the ilium, from which was discharged daily three or four ounces of pale clear mucus, occasionally tinged with pus. The case had the following history: In the summer of 1878 the patient traveled from Memphis, Tenn., to Richmond, Va., in a continuous journey. He experienced no special inconvenience while making the trip, except some irregularity of the bowels and weariness, but soon after his arrival he had a chill that was followed by a fever, which lasted two or three weeks and then subsided.

In December he was again seized by a chill, and then he suffered a great deal of pain in the right side of the abdomen, low down, and the pain ran down the thighs, sometimes affecting a single muscle, and was associated with fever of a remittent type, lasting about ten days. A third attack occurred in February, 1879, and was attended by pain. He lost flesh and strength during the spring, was somewhat lame, but his disease was not diagnosticated. No attention was given to the iliac fossa until September last, when he noticed a tumor there about the size of an egg, and apparently attached to the inner surface of the ilium. Just about ten days afterward it was outside of the bone, was opened, and three or four ounces of glairy fluid were discharged.

He then came under Dr. Weir's observation, who found a tumor somewhat tender upon pressure, situated in the right iliac fossa, just in the position in which tumors in that region are developed as the result of inflammatory action. Pressure caused it to discharge a thick, glairy fluid, and when a Nélaton catheter was introduced into the opening it could be carried in about eight inches.

Examination of the fluid, microscopical and otherwise, gave negative results.

Dr. Sands then saw the case with him, and recognized that the discharge came from a mucous surface, but did not arrive at any positive conclusion with reference to the seat of lesion.

On consulting books, he finally found in Virchow an account of *colloid degeneration* of the appendix vermiformis; and also found an account of the same in "Reynolds's System of Medicine." He also learned that Drs. Sabine and Delafield jointly saw a case in Bellevue Hospital, where the opening was about two inches above Poupart's ligament. Dr. Delafield was invited to see his case, and reached the conclusion that it was one of this variety.

The patient's general and local condition was then improving, and he was advised not to have anything done locally, so long as improvement continued; but when it came to a standstill, it was thought proper that the cavity should be injected with iodine, gradually increasing the strength of the solution used. In the meantime a highly supporting plan of general treatment was adopted.

Dr. T. T. Sabine gave the following history of the case to which Dr. Weir had referred: The patient came into Bellevue Hospital about two years ago. He had formerly been there for a similar trouble; the tumor was about the same size; the opening had healed, and he had been discharged.

When he returned to the hospital, Dr. Sabine found a swelling in the iliac fossa, two inches above Poupart's ligament and two inches to the inner side. The integument covering it was thin, slightly reddened, but the sense of fluctuation was not very prominent. He opened it, and at once was struck

with the peculiar character of the fluid discharged; it was glairy, almost transparent. When a probe was introduced it passed in a direction nearly backward, with a slight inclination upward, and he was unable to understand whence the fluid came. On consulting authorities, he found Virchow's account of colloid degeneration of the appendix vermiformis, referred to by Dr. Weir, and he also asked Dr. Delafield to see the case with him, and called his attention to Virchow's statement, when he agreed that it might probably be a case of that kind.

Dr. Sands remarked that the fluid discharged in Dr. Weir's case looked almost exactly like vitreous humor.

DISLOCATION AT THE SHOULDER-JOINT—RUPTURE OF A BLOOD-VESSEL.

The President reported a case as follows: Four weeks ago he was called by Dr. Rockwell, of Brooklyn, to see a lady eighty-six years of age, who, seven or eight weeks previously, had had her right shoulder dislocated downwards. She was seen by a gentleman in Connecticut soon after the accident, and he reduced it without special difficulty. About ten days afterwards the dislocation was reproduced, and then nothing was done towards placing the head of the bone in position until she came to Brooklyn, when Dr. Rockwell made a slight attempt to restore it to its place, but without success. Dr. Sands was asked to give an opinion regarding the propriety of making an effort at reduction, and he said that he regarded it as dangerous, and advised against it, but that if the friends and the patient desired, he would make a moderate attempt to put the bone in place. The lady expressed her desire and willingness to have something done; so she was anæsthetized with ether, and what he regarded as a very moderate effort to reduce the dislocated bone was begun by putting the left hand in the axilla, while with the right, using the arm as a lever, movements usually resorted to in breaking up adhesions were made. Evidently some of the adhesions did rupture, and after continuing the movements for three or four minutes, a sheet was placed around the patient's waist, and held from the opposite side by Dr. Rockwell's wife, while slight traction was made upward and outward, no towel being used for the purpose. The amount of traction was nothing like what he should have regarded as prudent to make, when it was stopped in order to readjust the band about the waist. While arranging to make a second attempt—five or six minutes—he thought he perceived a swelling in the axilla, and called Dr. Rockwell's attention to it, who thought it merely superficial and caused by the pressure from the bandage, and found what to him seemed to be the same condition upon the opposite side. Dr. Sands, however, removed the sheet, when it was very apparent that a blood-vessel had given way; there was a quite rapid increase of the swelling in the axillary region, and it was very soon as large as the head of a child at term. There was no pulsation in the radial, the ulnar, or the brachial artery. Feeling very certain that some large blood-vessel had ruptured, he was apprehensive regarding the ultimate result. Nothing in the way of treatment was done except to place the arm by the side and apply a bandage, but within half an hour the skin in the axilla had begun to show discoloration, and within a few hours the discoloration was very marked and extended up to the shoulder. The patient was excessively prostrated by the accident, and at one time it seemed not improbable that she might die from syncope. Hypodermic injections of brandy were given, and brandy by the mouth as soon as it could be swallowed, but she remained in a very low condition for several days, especially at night. In the course of the next day after the accident the extravasation gave signs of its presence quite well, down upon the side of the chest, and later it could be readily seen upon the side of the body as low as the side of the pelvis. The discoloration behind covered nearly the entire scapular region. There was neither fluctuation nor murmur over the region of extravasation. Nothing more serious had as yet occurred; there had been gradual improvement, and although pulsation had not returned in any of the arteries of the right arm, the limb presented no unfavorable appearance. The patient made no special complaint, except with reference to a very uncomfortable tingling, at times, along the distribution of the ulnar nerve. He thought that no other vessel except the axillary artery was ruptured, was gratified at an unexpected recovery from so dangerous an accident, and was surprised that such a rupture should occur from the use of so slight an amount of force. There was no interference with the general nutrition of the limb.

Dr. Weir referred to cases, reported by Gibson, in which rupture of the axillary artery occurred while extension was being made in the same direction—that is, upward.

Dr. Erskine Mason referred to Pancoast's case, in which the artery was at once tied beyond the point of rupture.

Dr. T. M. Markoe remarked that extravasation from a broken vessel was an interesting feature, and it was made more interesting by the fact that the patient recovered. He had had rupture of a vessel, with extravasation, occur twice in connection with fracture, and in both cases the accident was so alarming that he set them down as probably fatal, but recovery took place.

He had a case under observation in which, after receipt of the fracture at the middle of the thigh, ecchymosis increased rapidly, extended to the lower part of the limb, had associated with it fluctuation, although no pulsation could be felt. The leg was very much everted, and no pulsation could be felt in the anterior tibial artery. The limb was left in the position in which it was found at the time the accident occurred, because he was unwilling to make any traction. Cold water and pressure carefully adjusted to the thigh were resorted to, and to his surprise the swelling from day to day diminished, the pain gradually subsided, the ecchymosis disappeared, and, after about ten days, the swelling had become so reduced that the fragments could be placed in proper position, and the result had been very satisfactory.

The other case was one brought into the New York Hospital. It was a fracture of the tibia, and the anterior tibial artery was ruptured, as evidenced by a pulsating tumor communicating with the vessel. In that case also the fluid was gradually absorbed, and no evil consequences followed. He hesitated to make pressure in his cases because he feared such interference with the capillary circulation might jeopardize the safety of the limb. He therefore omitted pressure, and for a few hours kept ice-cold applications to the limbs. He thought such extravasation as occurred in Dr. Sands's case was rare.

The President remarked that it was rare, yet there were a number of reported cases in which large extravasations had appeared in these attempts at re-

duction of dislocation, and then gradually disappeared and the patients recovered.

Dr. Mason referred to a case which came into Bellevue Hospital, a fracture of the femur, with so great an extravasation of blood that some of the surgeons supposed the femoral artery had been ruptured. The swelling about the knee was very large, but it had no pulsation. The limb was snugly bandaged from the toes up, was renewed night and morning, and the patient eventually recovered, but for several days the limb appeared as though it might become gangrenous. He applied the bandage at the suggestion of Dr. James R. Wood, who had employed it successfully in two cases in which the artery had ruptured in popliteal aneurism.

The President referred to a case, occurring in Buffalo, N. Y., in which both shoulders were dislocated while the patient was in convulsions. He was forty-five years of age. The double dislocation was overlooked, and, upon one side, it remained some twelve or thirteen weeks, when Dr. Sands saw him, adjusted pulleys, and made powerful extension. He was nearly discouraged regarding its reduction, when suddenly it slipped into place and no subsequent extra trouble was experienced. Dr. Boardman, of Buffalo, had already applied to his arm sixty pounds weight without harm or success. He also referred to a case occurring in Dr. Willard Parker's practice, in which great force was applied in attempting to reduce a dislocation at the shoulder, occurring in a patient seventy-six years old, and the humerus was fractured through the surgical neck. He had not before seen a rupture of a blood-vessel.

Dr. Mason referred to a case in which the arm was broken by very gentle manipulation.

Dr. Weir referred to cases, reported by Watson and Buck, in which the humerus and femur respectively had been so fractured, but it was done by the rotary motion.

PERCENTAGE OF CARBOLIC ACID IN CARBOLIZED GAUZE AND JUTE.

Dr. Robert F. Weir, to correct a mistake which he had made in print (*Am. Journ. Med. Sciences*), gave the result of the analysis made by E. G. Love, Ph.D., of seven specimens of carbolized gauze and jute. The analyses were all made November 18, 1879.

The first specimen of carbolized jute was prepared according to the New York Hospital formula, July 12, 1879, and was found to contain 1.46 per cent. carb. acid.

The second, carbolized gauze, New York Hospital, Lister's formula, was prepared September 23, 1879, and contained 1.57 per cent. carb. acid.

The third, carbolized gauze, Roosevelt Hospital, Lister's formula, was prepared August 27, 1879, and contained 1.44 per cent. carb. acid.

The fourth, carbolized jute, Roosevelt Hospital, Munich formula, was prepared November 9, 1879, and contained 2.95 per cent. of carb. acid.

The fifth, carbolized jute, Roosevelt Hospital formula, was prepared October 31, 1879, and contained 4.56 per cent. carb. acid.

The sixth, carbolized jute, possibly Roosevelt Hospital formula, was prepared October 20, 1879, and contained 5.83 per cent. carb. acid.

The seventh, carbolized jute, New York Hospital formula, was prepared November 13, 1879, and contained 5.56 per cent. carb. acid.

Fresh carbolized jute, if properly prepared, should contain from 5 to 6 per cent. of carbolic acid.

The New York and the Roosevelt Hospital formula is as follow: Carbolic acid, 10 per cent.; resin, 40 per cent.; paraffine, 10 per cent., and benzine, q. s. to moisten a pound of jute.

The Munich formula is carbolic acid, grammes 50; resin, grammes 200; glycerine, grammes 250; and alcohol, grammes 550, for one pound of jute.

He also exhibited two kinds of new material for surgical dressing. First, Von Bruns' gauze, made by the addition of castor oil. The formula is resin, grammes 400, carbolic acid, grammes 100, castor-oil, grammes 80, and alcohol, *two* litres.

This material can be made by any general practitioner, and clinically, works very well. It can be kept on hand in solution. The other material was jute, containing *chloride of zinc*, and made after the following formula of Burdick: Chloride of zinc, 100; water, 1,000; and jute, 1,000. The conclusion from the analysis is that new carbolized material can be easily made, that it should be made in small quantities, and not kept on hand too long, and that all the materials, when prepared, should be tightly wrapped in rubber cloth and kept in boxes in a cool place.

The Society then proceeded to the transaction of miscellaneous business.

Correspondence.

DOCTOR'S BILLS.

To the Editor of The Medical Record:

Sir:—I am sure that I am not the only one of your numerous readers who was interested in your editorial on doctor's bills. I may say painfully so, at this season, when I look over my ledger preparatory to sending out my bills. Every practitioner meets with the demonstrative patient whose ardor for paying disappears with his tears; but he should be met in but one way. It is cruel to deny those good people a chance to acknowledge such indebtedness. By a little management, I have recovered fees which would have been irretrievably lost. But every practitioner must know how to do this in his own way, and it is unnecessary to go into any details about the matter. In fact, it is not my purpose to refer to that particular part of your remarks, but to allude more particularly to the careless manner in which physicians keep their accounts, and how indifferent they are to the collection of the smaller bills. You very truly say that our patients take the cue from us, and believe our services are of small account. Every one's experience in collecting bills demonstrates this, and we are to blame for it. There is generally a lack of exactness in rendering our accounts, which is unbusiness-like, and very often impresses the patient with the idea that our charges are arbitrary, whimsical, and unreasonable. We impress the patient with the idea that if he is rich we will make him pay roundly for professional services, and thus stand in our own light by making it appear that the rich are our legitimate prey. What is the consequence? We place a premium on dishonesty, and invite the best of our patients to plead poverty, to cry for mercy, and to feel that they must escape a trap we have laid for them. How often has it been said by our patients: "Doctor, I hope your bill will be light, for really I cannot afford to pay a large fee." In other words, he means to say that the doctor must not take advantage of him by charging him more than he would other people.

We, as a class, foster the belief that we are constantly watching to make the rich pay for the poor, and are constantly straining a point in favor of every one's poverty of which we have any suspicion. Between the two horns of the dilemma we lose the best part of our income. The rich steer clear of us, and the middling classes very often impose upon us. The latter have plenty of chances for doing this in applying at the dispensaries, or in getting the opinion of one of the "head doctors at the college." Now, this brings me to the main purpose of my letter, and that is the itemizing of our bills. I know that by some it would be considered undignified; but, after all, is it not business-like? We make each visit by itself, with an expectation of being paid for it, and if we keep each visit in mind when we render the bill, we are not so apt to lessen the amount, nor are we inclined to give the patient the idea that a few visits more or less are of no great importance. I am of the opinion that this lumping of bills is bad practice. No one can afford to do it, except such as our Pine Ridge friend, who is too successful and too busy to attend to such small matters. What is right one way is right the other. We should claim no more than our just bills, but we should insist upon having the full amounts for the same. If we were a little more particular in insisting upon these points, we would doubtless have less reason to complain of bad debts. Of course, some accounts must be missed *nolens volens*, but these can be reduced very much in number if we are in earnest in collecting our bills.

X.

New York, Jan. 5, 1880.

To the Editor of The Medical Record.

Dear Sir:—Will you allow me, in thanking you for your timely remarks on medical fees, to suggest that physicians send in their accounts monthly? I know the longer they are deferred the harder it seems to pay them. Then, again, attendance extended over a long period is apt to "mount up" very fast, and the longer it is allowed to do so the more surprised is the patient to find how large his bill is. It would be the same with his grocer's or his butcher's bills.

——, M.D.

Newark, N. J., Jan., 1880.

GRATUITOUS SERVICES TO CLERGYMEN.

To the Editor of The Medical Record.

Dear Sir:—I have read with much interest the correspondence on the subject of "Gratuitous Treatment to Clergymen," but think we fall short of our mark if such things are discussed in medical journals only.

The clergy do not see them there; and one reason why I think the abuse is continued, is because the clergy have not had their attention called to the subject.

I have taken the liberty of copying your editorial article of December 13th entire, and sending it to the *Churchman*, a publication which is largely circulated among the Episcopal clergy, with the request that it be printed in a current number. This will show those divines who read that paper how we feel on the subject; and, as I believe those men to be *gentlemen*, I think they will see the justice of the remarks that have appeared in medical journals concerning them, and will be ready to correct it. Now, I suggest that some other doctors, who are members of the other religious beliefs, send copies of the same editorial to the different religious papers, and thus our remarks will appear before the majority of the class we are trying to reach.

A one-sided argument never does any good.

MacP., M.D.

Minneapolis, Minn., Dec. 23, 1879.

CONCERNING NEGATIVE PRESSURE.

To the Editor of The Medical Record.

Dear Sir:—I desire to say a few words in response to Professor Garland's article on "Negative Pressure," published in the Record of December 27, 1879. Before making my criticism I wish frankly to acknowledge that Prof. Garland's assertion, made in criticism of a protest which I had made against the use of the term in question, in the Record of Sept. 27, 1879, namely, that I had "failed to understand the meaning of the term," is correct. I had assumed that the words were used in their ordinary sense. It was through my own carelessness that Dr. Garland's clearly-worded definition, given in his work on "Pneumono-dynamics," did not correct my misapprehension. This definition is as follows: "As I understand it, negative pressure is simply the scientific expression for the common term *suction*. It does not, however, imply anything as to the magnitude or intensity of any force, but simply designates the manner in which the force is applied. Suppose the planes A and B are placed in immediate contact with each other, to the exclusion of all intermediate air. Now, if an external force, or if an inherent, automatic force, act upon the plane A to remove it from B, then A is said to exert a negative pressure upon B."

Dr. Garland, in accordance with this definition, calls attention in his article to the fact that, in case of a suction-pump, the term *negative pressure* is applied, not to the atmospheric pressure, but to the force which elevates the piston. Now, the definition of *pressure*, quoted by him from Rankine, is as follows: "Thrust or *pressure* is the force which acts between two contiguous bodies, or parts of a body, when each pushes the other from itself." In his definition of *pull*, Rankine remarks that "the word '*pressure*,' although strictly equivalent to '*thrust*,' is sometimes applied to stress in general." It is only under this exception that the term *pressure* can be applied to a force *pulling* up a piston. This usage is not sanctioned by Webster or Worcester. Webster defines *pressure* as being "the action of a force against some obstacle or opposing force." To speak therefore of A as exerting *pressure* on B, whatever may be the adjective applied to *pressure*, is, it seems to me, to employ the word in a sense not justified at all by general usage in other connections. B is *not* "an obstacle or opposing force against which A is acting." On the contrary, A is being drawn away from B, or would be were it not for atmospheric pressure. This use of a word in a sense not only differing but diametrically opposed to its accepted meaning, does not seem to me to contribute to a "systematic and orderly arrangement of knowledge."

The use of the negative sign in an algebraic equation in ascertaining the resultant of opposing forces is, of course, allowable. But the use of the word *negative* as applied to a thing essentially positive when

the algebraic formula is out of mind, seems hardly conducive to clearness of statement. The words *operation* in English, *operation* in French and *Saugen* in German, express the idea in question without ambiguity. The term *evacuant-producing power* is perhaps still clearer. Where, then, is the necessity of using an expression so capable of misinterpretation as *negative pressure?* In spite of general usage, I fail to see that it is either desirable or scientific to use an expression one word of which (*i. e.*, negative) is employed merely in an algebraic sense, not in accordance with its ordinary signification, and the other (*i. e.*, pressure) in a sense which is in direct contradiction to its accepted etymological meaning.

Very truly yours,

R. VAN SANTVOORD.

66 WEST ELEVENTH STREET, Dec. 29, 1879.

THE "SUCCESSFUL PRACTITIONER OF PINE RIDGE" AND THE CODE.

TO THE "SUCCESSFUL PRACTITIONER" OF PINE RIDGE.

DEAR SIR:—Pardon a stranger for venturing to trespass upon your valuable time, but the benevolent tone of your communications to the medical press, and the wholesouled devotedness to the welfare of the profession which is evidenced therein, encourages me to write you. I want to say that I have considered your account of your professional life as very interesting and edifying. It is particularly fortunate that at this time you have given the profession such a glimpse of the "inwardness" of successful practice of the code. I have been practising a number of years in this place, and have always watched the course of practitioners of success with very earnest interest, have listened to their discourses and words with attentive ear, and have sought to be guided by their example as far as was revealed. The candor and honesty of your statements is so conspicuous, however, and the perspicuity of your discourse is such as renders your ideas and practice most forcible. It is rare that authors attain so full a grasp of the subject. I await with expectation the appearance of your work on "Abrasions," etc., as it will doubtless be reliable and full of valuable suggestions. I have no doubt I shall hear of its publication early and be able to avail myself of its ideas in good season; still, if you publish pamphlets, please do me the favor of a copy, and I shall thus be able to make early confirmations, when proper occasion offers, of the methods you find successful.

I have just referred to the perspicuity of your biographical sketch; I must mention, however, an incident that will show you that time is necessary for the proper application of the character and works of advanced men. When the first section of your sketch appeared I referred it to a medical friend who has flourished during nearly sixty summers of modest contentment, and commended it as an article of merit. When the second came to hand, I went to him with some degree of enthusiasm over the portrayal of your success and how it was obtained, and expected no little pleasure in our mutual admiration of the revelation of the autobiographer. I was cooled considerably to find that my senior friend had his attention altogether concentrated upon Dr. White and his want of knowledge of professional tactics. The surpassing skill with which his rival outshone him, did not attract his admiration at all. Well, I managed to content myself until the third chapter came, and the transcendent revelation therein announcing your new invention, the diaphragmatico-gastro-hepatic speculum combination, or something of that nature. Then the light of genius burst upon him, and he indulged in audible expressions of joy. He then found reperusal interesting and suggestive.

Another point before I close. When I was at the beginning of my medical life, I was greatly impressed with the beauty and convincing eloquence of the code of ethics, and had enough missionary spirit in me to plan making a translation thereof for use among the Indians. On engaging in the practical work of the profession, however, my time was so much taken up in efforts to make my living and in anxiety therefor, that I could not accomplish my plan. And then I found that there were serious difficulties in the conscientious practice of the code, at times, that convinced me that a translation of it would be of no use to the Indians unless a practical embodiment of its principles, in a biographical form, accompanied the text. While I have labored on in hope, and have selected one and another living exemplar as a fit subject for biographical accompaniment to the work, I have found the difficulties rather increased; and now that I have read your autobiography, I am convinced that a translation had better not be made yet. Until the Indian becomes more advanced the work would probably do more harm, by preventing a few "medicine men" from getting a living, than good. I have, therefore, given up my first idea, and if I find time to translate anything it would probably be your life and writings. Others who are familiar with European, Oriental, and Egyptian manners and tongues, will doubtless become early transcribers of your works therein. Meanwhile I am glad the record of your honest and successful effort appears in plain English. Your example and suggestions are calculated to assist many in overcoming those practical difficulties that the unenlightened follower of the code meets with in his competitive work. The principles and practice of business in medicine is the earnest study of

Yours very truly,

MEDICAL ASPIRANT.

WARE, MASS., Dec. 20, 1879.

New Instruments.

DESCRIPTION OF A NEW INSTRUMENT FOR INJECTING THE HERNIAL RINGS IN THE RADICAL CURE OF HERNIA.

By JOSEPH H. WARREN, M.D.,

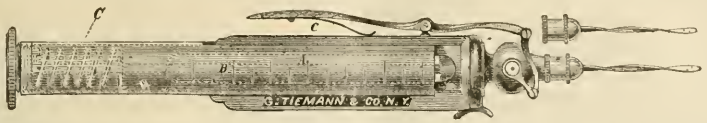
BOSTON, MASS.

THE instrument here figured consists of a barrel, A, holding about sixty minims. This barrel is of glass, accurately fitted within a cylinder of silver, which is fenestrated with two openings to present a view of the barrel and its contents. The barrel is graduated, each degree indicating ten minims. The piston, B, works by a spring, C, very tightly within this tube, so as to exclude all air possible. The lower end, D, of the piston is slightly concaved. At the bottom of the interior of the glass barrel is seen a ring, E, one-eighth of an inch in thickness, made of soft rubber, for an air chamber, with a hole in its centre for the exit of the fluid.

On the lower exterior end of the barrel will be seen

wo convenient semicircular handles, with the con-ave side roughened to give a firm hold for the finger nd thumb of the operator. In one of these handles, he one grasped by the thumb is the spring, c, con-rolling both the piston, B, and a valve, G. We thus ave perfect management, both of the amount of the luid to be injected, and of the time when it shall be njected.

The valve, G, is situated just below the bottom of



he barrel and rubber chamber, and is opened and hut by pressure on the spring, c. Below this valve s a diamond, or other hard stone, concaved to fit exactly the convex head of the needle which plays upon it.

The needles are flattish, oval in shape, and are wisted throughout their entire length. They are of hree sizes. No. 1 is one and a quarter inches in ength, size two and a half Amer. scale; No. 2 is one nd three-eighths in length, size two and three-quarters, Amer. scale; No. 3 is one and a half inches n length, and size three. It should be remembered hat, from their peculiar form and twist, they make n incision only about one-half the size of round needles which measure the same on the scale. The wist of the needles also varies. No. 1 is twisted to evolve once in penetrating one-fourth of an inch. No. 2 once in penetrating one-half an inch, and No. 3 once in penetrating three-quarters of an inch. I se No. 1 in operations on umbilical hernia and other ierniæ where the tissues are thin. It is therefore small, and has a quick twist because it is necessary hat the needle in penetrating should make a full evolution, so as to distribute the fluid on the parts o be irritated by the injection. No. 2 is for use in operating on the majority of small and recent her-iæ. No. 3 is for use on large and long-standing uptures, where the needle must traverse tissue gen-rally much thicker than in the other cases mentioned, nd often surrounded by adipose deposit. I wish to ay just here that the same principle of the twist can e applied to all trocars, aspirating needles, male and female catheters, tracheotomy tubes, canulas for in-ecting fistula in ano, and to sounds and dilators for stricture of the urethra and uterus. I may say, too, that these instruments thus improved can be ob-tained of the same manufacturer who makes this in-strument for the radical cure of hernia. The needle has a round shank, playing through a collar, H, which is attached by a screw thread to the neck of the barrel.

I have said that there was a rubber cushion at the bottom of the glass tube, A. This cushion remedies the defect common to hypodermic, as well as all other syringes, for it forms an air chamber which arrests the passage out of any air that may be in the barrel, and there is always more or less, and this would be injected with the fluid. It also acts very effectually in stopping the farther action of the piston after all the fluid has been injected.

The method of using the instrument is as follows: With the valve, G, closed, the needle is inserted in the fluid to be used. The valve is now opened by slight pressure upon the spring, c. The pressure being continued, the piston can be retracted and the barrel will be consequently filled with the fluid.

The valve is then allowed to close, and the instrument is charged for use. Having selected the most suitable point over the rings to be injected, we now thrust the needle slowly and gently, but at the same time firmly, through the integuments. During this act the needle revolves because of its twisted form. As soon as it has passed through the integuments, pressure is made upon the spring, c, which opens the valve, G, and allows the fluid in the barrel to flow as slowly and in such quantity as the operator may in any given case think necessary. The quantity used can, of course, always be known by the engraved scale on the barrel.

51 Union Park, October 2, 1879.

DRAINAGE-TUBE CARRIER.

Dr. John B. Hamilton, Surgeon-General of the United States Marine Hospital Service, has devised a simple and efficient instrument for placing drainage-tubes in wounds.

The instrument is one that is generally needed for the purposes indicated, as drainage-tubes are usually carried into place by forceps. In withdrawing the forceps, the tube is frequently drawn out with it.

The instrument consists of a stylet, with a hook at the end within a canula; the stylet is moved by a button over a side slot in the canula. A spear-head may be attached for use where it is desired to carry the tube into a cavity which has no external opening. It will be a necessary attachment in introducing a seton, or a drainage-tube through a flap after an amputation, or through the vagina in Douglas's cul-de-sac, after ovariotomy, or in course of treatment of pelvic cellulitis.

In using the instrument, the drainage-tube must be kept taut, so that when released, it will instantly, by its own elasticity, throw itself from the grasp of the stylet.

Collodion as an Application in Acute Rheumatism.—Dr. J. W. Reins writes to the *Western Lancet* that he has met with much success in the use of collodion applied to the inflamed joints in acute rheumatism. He paints the part four or five times a day.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 21st, 1879, to January 14, 1880.

Barrows, J. H., Capt. and Asst. Surgeon. Granted leave of absence for six months. S. O. 290, A. G. O., December 24, 1879.

Byrne, Charles B., Captain and Asst. Surgeon. Granted leave of absence for two months, with permission to apply for an extension of four months. S. O. 287, A. G. O., Dec. 20, 1879.

Havard, Valery, Capt. and Asst. Surgeon. His leave of absence extended one month. S. O. 91, Div. of the Atlantic, Dec. 22, 1879.

Hall, Wm. R., First Lieutenant and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for an extension of three months. S. O. 180, Dept. of the Columbia, Dec. 5, 1879.

Vollum, E. P., Major and Surgeon. Relieved from special duty in connection with inspection of veterinary supplies, to resume his station at Jefferson Bks, Mo. S. O. 291, A. G. O., Dec. 29, 1879.

Forwood, Wm. H., Major and Surgeon. Assigned to duty as Post Surgeon at Ft. Omaha, Neb., relieving Asst. Surgeon R. Barnett. S. O. 121, Dept. of the Platte, Dec. 29, 1879.

White, R. H., Capt. and Asst. Surgeon. Relieved from duty in Dept. of Texas, to proceed to New York City, and report by letter, upon arrival, to the Surgeon-General. S. O. 293, A. G. O., Dec. 29, 1879.

Taylor, R. D., 1st Lieut. and Asst. Surgeon. To report in person to Comdg.-General, Dept. of the East, for assignment to duty. S. O. 292, A. G. O., Dec. 27, 1879.

Hall, Wm. R., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the Columbia, and, upon expiration of his present leave of absence, to proceed to New York City, reporting his arrival, by letter, to the Surgeon-General. S. O., 293, A. G. O., Dec. 29, 1879.

Appel, D. M., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the Missouri, and, upon expiration of his present leave of absence, to proceed to New York City, and report by letter, upon arrival, to the Surgeon-General. S. O. 293, C. S., A. G. O.

A Modest Contributor.—We have received the following amusing note regarding a contribution to our columns:

"Dear Sir—Two weeks ago I mailed to your address a short sketch, regarding the properties of ——, to prevent misleading young physicians in their observations and practice. I see you have not published it. I think my observations of 100 cases, and for three to four years, are just as valuable to the profession as Dr. Rokitansky's or Dr. Schiller's. Besides, as a reader of your journal for several years, you should treat your subscriber with more consideration. I think so! I am, sir, truly yours."

[We are happy to say that we just saved ourselves by accepting the little note for publication as an item. If we had known its importance before, we would have published it at once. We are willing to give every consideration to such contributors, if for no other reason than to humble Rokitansky and other great men.—Ed.]

Medical Items and News.

Contagious Diseases — Weekly Statement — Comparative statement of cases of contagious disease reported to the Sanitary Bureau, Health Department for the two weeks ending January 3, 1880.

Week Ending	Typhus Fever	Typhoid Fever	Scarlet Fever	Cerebro-Spinal Meningitis	Measles	Diphtheria	Small-pox	Yellow Fever
Dec 27, 1879	0	11	42	0	228	44	0	0
Jan. 3, 1880	0	6	37	2	158	36	0	0

Lumbo-Colotomy for Non-Malignant Disease.—The following case was communicated to Dr. L. A. Sayre, of this city, and is by him kindly placed at our disposal. "I see in the Medical Record of last week the report of a case of 'lumbo-colotomy for *non-malignant* disease,' made by Dr. Post, before the Academy of Medicine, November 20th; and the remarks made by yourself and others upon the case brings to mind a case occurring in my practice a few years ago, which may be of some interest to you, so I will give you a short account of it. The patient was a young man aged about 20, always healthy, and of good family history. Sent for me in the fall of 1873, on account of a severe pain in his bowels, with inability to get a movement; stated he had taken sixteen pills without effect, but they rather made him worse. Upon examination, I found a fulness in the right iliac region, with a good deal of tenderness; an oblong tumor of the cæcum; vomiting, hiccough, and all the other symptoms of obstruction of the bowels. He went along, getting worse for over two weeks, when he had become so much depressed that it seemed he would soon succumb. I determined to make an artificial opening for the fæces, as nothing had passed his bowels excepting a little bloody mucus since taken; and, upon examining the right lumbar region, discovered a point of some fulness, through which I proceeded to cut directly down to the gut, which I found greatly distended; and upon opening it there was a large discharge of liquid fæces, gas and some bloody pus. The artificial anus was kept open for about two weeks longer, when he had a passage by the natural way from the bowels, which was the first since taken sick, and in the passage was a portion of the intestine about eight inches in length. He continued to have evacuations through both channels for some time longer; but the artificial one gradually diminished, and finally healed up entirely, and he entirely recovered his health, and is now a strong, healthy man, employed as a conductor on our railway."

A Correction.—In the report of the Preston Retreat, in your issue of Nov. 29th, there is a typographical error which needs correction. Under the head "Closure of the Vulva for Vesico-vaginal Fistula," the first line should read "In incurable cases etc.," instead of "*in curable cases*," as it now stands.

Formation of Artificial Vagina.—In April, 1878, a young married woman, aged 22, was admitted to the Female Mission Hospital, Ajmere, India, asking relief for occluded vagina. She stated that she had always menstruated regularly, but that, on being

married, it was found that she could have no connection with her husband. She had been badly treated by him and others in consequence.

On examination by Dr. John Hubbard, the attending physician, no trace of a vagina could be found. At the upper part of where it should have been, a pouch-like projection was felt, which proved to be the urethra greatly dilated. Examination by the rectum showed that there was a uterus which communicated with the urethra, thus explaining how she had been able to menstruate.

An operation was decided on. An incision was made in the tissues between the urethra and rectum, a staff having been introduced into the bladder. By cutting and tearing, a channel was easily made to the uterus. After the operation this was kept open by plugs of lac. Within two weeks the patient was discharged with her new vagina. She returned in a few months in great glee, saying that she was pregnant. The child was a small one, and was delivered in safety.—*Brit. Med. Journal.*

Vitality in Decapitated Heads.—A criminal was recently guillotined in Paris, and five minutes after the execution his head was turned over to Dr. E. Decaisne, in order to test whether, as had been alleged, there was any vitality still in it. The report of the experiment in the *Bulletin de l'Académie de Médecine* states: "We have ascertained, as far as is humanly possible to do so, that the head of the criminal in question had no semblance whatever of the sense of feeling; that the eyes had lost the power of vision, and, in fact, that the head was perfectly dead to all intents and purposes." The tests made were the application of irritants, noises to the ear, and lights before the eyes.

Increase of Infectious Diseases.—The Connecticut State Board of Health has issued a circular calling attention to the increasing prevalence of small-pox and measles. The former disease has prevailed in the principal cities of Europe since August last, and 214 deaths have occurred in Paris from the disease. It has also appeared at Montreal, St. John, Havana, and Matamoros, and more recently Philadelphia, Washington, San Antonio, New York, and New London have reported deaths from the same cause. The importation and interstate shipment of rags has been proved in some cases to be the carrier of the poison; but there is a tendency also for small-pox to appear in widely separated places, and early precautions are therefore advised. It is recommended that the common councils of the various cities pass an ordinance requiring all school-children to present a certificate of vaccination.

Contagiousness of Post-nasal Catarrh.—Dr. William R. D. Blackwood, in the *Philadelphia Medical Times*, writes that it is his belief, from close observation, that post-nasal catarrh is under certain conditions contagious, even when positively non-syphilitic. He has repeatedly seen the disease occur in newly married persons, and where children previously healthy had slept with those thus affected. In all such instances there was no hereditary tendency, nor were other members of the family affected.

University of California.—The medical department of the University of California several years ago adopted a three years' graded course for its students. In its just published annual announcement we see that it has taken a further step toward securing a higher education by requiring a preliminary examination for matriculation. At the last commencement of this college, Nov. 7, 1879, the degree of M.D. was conferred on thirteen graduates.

Mr. Curling, the London surgeon, who has been in active practice for upward of forty years, has now retired from the council of the College of Surgeons, of which he has been member and president, and he is soon to retire from practice altogether.

Dr. Seaton, who has been for four years medical officer of the Local Government Board of England, has retired, on account of ill-health.

Harvey's Treatise on the Heart and Circulation, *exercitatio anatomica*, has for the first time been translated into French.

Slow Pulse.—A number of cases of notably slow pulse have been reported in the *British Medical Journal*. Mr. Noble relates the case of an old gentleman of ninety-six, whose pulse was only 36 per minute. Mr. Edw. Garraway tells of a patient of his, an old woman aged eighty-three, whose pulse was 25. In a case related by Mr. R. Park, the pulse varied between 32 and 36. A gentleman aged thirty-eight had a pulse of about 40. He was in good health, and had no other physiological peculiarity. A gentleman aged sixty-seven had a pulse of 32, which sometimes dropped to 28. A woman aged sixty-nine had a pulse of 30 or 36. In these two last cases there were occasional symptoms of dyspnœa, syncope, and cold extremities. The pulse, when by any cause greatly accelerated, became intermittent.—*Brit. Med. Journal.*

Litholapaxy.—Sir Henry Thompson recently performed the operation of litholapaxy, at the Necker Hospital, Paris. The patient was a man, aged 54, who had already been operated on twice by lithotrity. The operation on the present occasion lasted sixteen minutes. The patient at last accounts was doing well.

Intra-uterine Vaccination.—Cases have been related of women who were vaccinated while pregnant—the infant, subsequently born, not being susceptible to the vaccine virus. It appeared possible, therefore, that in some cases genuine intra-uterine vaccination had taken place. Other cases, however, have been reported which prove that this non-susceptibility does not always occur. One woman had the small-pox while eight months pregnant: her child was afterward vaccinated and showed a well-marked pustule of vaccinia.—*Brit. Med. Journal.*

The Boston Medical and Surgical Journal for 1880 appears in a new dress. It is in quarto form, and enlarged in size. The new make-up is a great improvement, and is an indication of prosperity which the high standard of the journal richly deserves.

The Pancreatic Ferment.—Dr. Wm. Roberts, in an article upon the digestive ferments describes a way of administering the pancreatic ferment so that it will act effectively. Pancreatic preparations are more powerful than those of pepsin, and digest with great energy starch, albuminoids, and fat. Unfortunately, however, they act only in alkaline media, and the acid gastric juice neutralizes and digests them before they can reach the intestine. In order to prevent this, Dr. Roberts gives the preparation two or three hours after each meal, guarding it with an alkali. As the gastric digestion is nearly at a close at this time, the pancreatic ferment is supposed to be carried safely through the stomach. Dr. Fothergill, who describes this plan in the *Phila. Medical Times*, is full of admiration for its great ingenuity, and of praise for the prospective

beneficial it will secure. We do not share the raptures. It remains to be proved that the trey-in gets safely through the stomach, and that its alkaline body-guard will not excite enough gastric secretion to destroy it. Further, intestinal indigestion is comparatively rare, and in dyspepsia the worst distress is in the hours directly after eating. A medicine not given until the pains are over cannot become very popular. But the theory is a beautiful one, and evidently has fascinations to the scientific therapeutist which the lively imagination of Dr Lothergill could not resist.

Damages for a Doctor.—Dr Phillips, a London physician of large practice, sustained injuries from an accident on the Southwestern Railway, which destroyed for a time, and perhaps permanently, all possibility of earning a professional income. He sued the company, and got on the first trial £7,000 damages. Being unsatisfied with this, he sued again and got £17,000. This is probably the largest sum ever awarded by a jury for personal damages.

The Measles continues to be unusually prevalent in the city. The death-rate is about .8 per cent., which indicates a not very severe type.

Death of Dr. Robert C. Cone.—Dr. Cone died at his residence in this city, Dec. 21st. He had been an active practitioner here since 1865.

Benzoate of Soda.—Dr. Bernard Tauber, of Cincinnati, Ohio, writes: "This drug seems to be the latest "en vogue" remedy for the treatment of diphtheria, phthisis, etc. For the last three to four years, in about one hundred cases of ozæna and diphtheria, I have used, locally and constitutionally, in weak and strong solutions, benzoic acid, thymol, and thymic acid. The results were the same, at least not better, as when a solution of carbolic acid was applied."

The Care of the Insane.—A meeting was held at the residence of Dr. C. R. Agnew, January 6th, to hear the State Commissioner of Lunacy, Dr. John Ordronaux, deliver an address on the subject of Lunacy Reform. A large number of distinguished guests were present, representing the medical, legal, and clerical professions. Among these were Rev. Drs. Thos. S. Hastings, Howard Crosby, John Hall, Armitage; Judge Curtis; Drs. A. C. Post, Dalton, Sims, Roosa, Loomis, Nichols, Shaw, John P. Gray, A. E. Macdonald, George M. Beard, Dana, W. H. Draper, Shrady, Prof. Chandler, and a number of others. Judge Curtis presided. The address of Dr. Ordronaux was listened to with much attention, and was followed by brief remarks from Dr. Agnew.

New York Neurological Society and the Report of the Senate Committee.—At the stated meeting of the New York Neurological Society, Tuesday evening, January 6th, a report entitled "An Answer to the Document of the Senate Committee on Public Health concerning the alleged Abuses of Insane Asylums," was read. It contained a vigorous denial of the conclusions in the Senate Committee's report, as well as a number of accusations against the fairness of that committee. It was accompanied by a number of documents substantiating the statements made. As this report will soon be published in detail, a fuller account of its contents is postponed.

Treatment of Alcoholism.—The results of an analysis of 125 cases of alcoholism treated in the Mercy Hospital, Chicago, have been presented by Dr. E. C. Hehn, in the *Chicago Medical Journal and Examiner*.

Most of the cases presented symptoms of excitement, ranging from restlessness and insomnia to delirium tremens.

These were deprived at once and entirely of alcohol, and put upon potas. brom., gr. xx., and tr. digitalis, ℥ v., every three hours. If this did not produce quiet, chloral hydrat., gr. v. to xx. were given every half hour until three doses were taken. Chloral in 3ss. doses had produced very serious symptoms.

In cases where there was much gastric disturbance, the treatment was supplemented with carbolic acid and tincture of gelsemium in a little paregoric.

The results of the above treatment have been uniformly good, the patients being generally cured in six or seven days.

Injury of Eyes from Chloral.—Dr Charles J. Kipp, of Newark, N. J., writes under the above heading: "I find in the last number of the Record a letter from Dr Felton, in which he relates two cases (apparently from hearsay) of 'permanent weakness' of the eyes, following an acute inflammatory attack, brought on by the use of small doses of chloral continued only for a few days. He concludes his communication with the question, 'Has chloral ever before been known to produce a similar attack?' In answer to this, I would state that some years ago I saw several persons suffering from affections of the cornea, who assured me that their eye-troubles came on shortly after taking chloral. Thinking that there might possibly be some causative relation between the eye-disease and the drug, I examined a large number of individuals—inmates of lunatic asylums and others—who were habitually taking chloral in pretty large doses, but found no more eye-trouble amongst these persons than is found amongst people taking other medicines, or none at all. The conclusion I arrived at, at the time, was, that there was no good reason to assume that chloral produced eye-disease of any kind, and I have had no cause to change my opinion since then. With regard to the cases related by Dr. F., I may be permitted to remark that he has failed to furnish any evidence whatever in support of his opinion."

Committee on Organization of a State Lunacy Commission.—The committee appointed for this purpose, at the recent meeting at the Cooper Institute, is as follows: Mr. Wm. C. Church, Chairman; Hon. Dorman B. Eaton, Mr. Chas. E. Whitehead, Dr. George M. Beard; Dr. E. C. Seguin, Secretary. Associates—Mrs. Abby Hopper Gibbons, Miss A. A. Chevallier, of Boston. Three meetings of the committee have already been held, and considerable progress is being made in the work.

BOOKS RECEIVED.

A Manual of the Practice of Surgery. By W. Fairlie Clark, M.A. and M.B. From last London edition. Revised and edited, with additions, by an American surgeon. Wood's Medical Library. New York: W. Wood & Co. 1879.

The Theory and Practice of Medicine. By Frederick T. Roberts, M.D., etc. Third American from fourth London edition. Philadelphia: Lindsay & Blakiston. 1880.

Lectures on Diseases of the Nervous System. By J. M. Charcot. Translated from the second edition by George Sigerson, M.D., etc. Philadelphia: Henry C. Lea. 1879.

Medical Record Visiting List. W. Wood & Co. 1880.

Original Lectures.

A CLINICAL LECTURE,

DELIVERED AT THE PENNSYLVANIA HOSPITAL, PHILADELPHIA,

BY J. M. DA COSTA, M.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE, AND OF CLINICAL MEDICINE IN JEFFERSON MEDICAL COLLEGE.

(Reported for THE MEDICAL RECORD.)

I. DILATATION OF THE STOMACH.
II. BRIGHT'S DISEASE AS A RESULT OF EXPOSURE OCCURRING IN A MALARIAL SUBJECT, AS DISTINGUISHED FROM THE SO-CALLED MALARIAL BRIGHT'S DISEASE.
III. ACUTE TUBAL NEPHRITIS ENGRAFTED UPON A PREVIOUS CHRONIC CONDITION.

THIS is one of those cases of a chronic character which seem very easy to dispose of at first, but which, upon longer observation, turn out to be very difficult to treat successfully.

The patient is a man some fifty-five years of age, and by occupation a car-driver. He says that he has never been more than a moderate drinker. Two years ago he began to be dyspeptic, and lost his appetite. He found himself also obliged to urinate frequently at night. There was no dropsy apparent upon admission, but he vomited frequently, and was, in fact, one of those most unfortunate of beings, a wretched dyspeptic. His tongue was thickly coated, and his urine alkaline and phosphatic, but free from albumen and sugar. The abdomen was distended, and the epigastrium tender. He was, in other words, flatulent and constipated, with symptoms of marked organic dyspepsia.

We kept him in bed for a time and gave him complete rest, and set ourselves at work to find out the cause of his dyspepsia. Perhaps the numerous and painstaking examinations which were made in the wards can be usefully repeated to some extent in your presence this morning. Let me examine the patient as if this were the first time I had seen him.

His tongue is somewhat less coated than it was, but is still far from clean. The resident tells me that he still vomits once in a while, that is, once in every two or three days. These spells of vomiting occur generally at night, or near the end of the day. At such times the contents of the stomach come up in large quantities—sometimes the vomit appears to represent the whole of several meals. This vomit has a thick froth on the surface, which smells and looks like the froth of beer or yeast, and leaves a heavy deposit on the bottom of the vessel.

"Have you ever any pain in your stomach?"

"Yes, I have cramps in my stomach occasionally, but not often."

These cramps are generally at night, and come from over-distention of the stomach. They were very much more marked just after he was admitted than they are now. There has, upon no occasion, been any vomiting of blood.

To what does all this point? It points unquestionably to some organic disease of the stomach. To what organic disease does it point—to cancer? The patient is at the cancerous age, and the vomiting at night looks very much as if there were some mechanical obstruction, such as cancer, to the free passage of food into the pylorus. I examine the region of the stomach, and particularly its pyloric extremity, for a tumor, but can find none.

I percuss the region of the stomach, but can detect no dulness. On the contrary, I find the stomach tympanitic as far down as two inches below the navel. There is plainly a very unusual increase in the size of the stomach. There is no tenderness on pressure, no spots of soreness, no pain in the back. These points have a direct bearing upon the existence of ulcer or cancer. These are negative symptoms.

Under my supervision, the resident physician has made a most careful microscopical examination of the vomited matters, and, just as we had expected, he found a great many bodies like this figure, which I outline on the blackboard, floating about in the vomit—the so-called *sarcinæ*—a peculiar vegetable fungoid growth, described by Goodyear, and almost always associated with this yeasty vomit—this obstinate dyspepsia, and this dilated condition of the stomach. We have then here one of those rare cases of dilated stomach with narrow pylorus, unattended by either ulcer or cancer.

What are my reasons for thus positively excluding these two conditions? First, as regards my reasons for determining upon the existence of dilatation, they are: (1) because percussion shows an unusually extended area of tympany; (2) because a yeasty vomit containing sarcinæ is very apt to be present in dilatation of the stomach whether from cancer or any other cause; (3) on account of the way in which the vomit occurs, the accumulated results of several meals being cast up at a time.

My reasons for excluding cancer: (1) the absence of pain upon pressure; (2) the absence of any tumor; and (3) the absence of blood in the vomit.

My reasons for excluding ulcer: (1) the absence of pain after meals; (2) the absence of hemorrhage; and (3) the absence of points of local tenderness.

What has our treatment been? Since I have had charge of the case, I have treated the patient with bismuth, giving him gr. xv. between meals, and gr. x. of pepsin at meal-time. At the same time we have regulated the patient's diet, and attended to his bowels. We also have given him gtt. x. of the tincture of nux vomica before meals, with evident benefit. His tongue is cleaner, and he has gained flesh. To modify the process of fermentation in his stomach, he has been taking gtt. i. of the concentrated carbolic acid diluted with water and glycerine, once a day. His diet is chiefly fluid, consisting mainly of milk, oyster broth and beef-tea.

Shall we continue this treatment, now that we thoroughly understand the case, or shall we modify it? The same dose of bismuth shall be continued; so, too, with regard to the small doses of nux vomica before meals, and of pepsin with meals.

But we do not seem to be fulfilling the indication of checking fermentation, or doing anything to reduce the dilatation of the stomach. This brings us to the question of how to check the multiplication in the stomach of these agents which are associated with the fermentation. The best means at our command for accomplishing this end are sulphurous acid, the sulphites, and carbolic acid. In this case I shall order gr. ½ of carbolic acid, four times a day, in glycerine and water, and if this does not put a stop to the presence of sarcinæ, we shall have to resort to sulphurous acid or the sulphites.

Upon several occasions, in cases such as the present, I have made use of the German plan of washing out the stomach, and in so getting rid of the foul secretions. In this manner I have in several cases

effected an actual cure. The treatment by washing out the stomach is very annoying, but also in some cases very successful. I will perform it at your pleasure once to-day.

Washing out the stomach in chronic cases of dyspepsia, and particularly in those cases in which that organ is dilated, is a plan of treatment that, while it is not altogether new, may still be said to be so, since it has only become a regularly systematized form of treatment since Kussmaul introduced it.

The object aimed at by this method of treatment is to get rid of the large amount of fermented matter remaining in the stomach—matter which cannot otherwise be gotten out of the organ, and which, remaining in it, impairs digestion, ferments, and makes the patient's life wholly miserable, while it at the same time weakens the system and increases the dilatation of the stomach.

Simple lukewarm water was first employed for this purpose, but subsequently weak alkaline solutions of carbonate of sodium were tried. This latter medium is that recommended by Kussmaul.

In no instance should the operation of washing out be performed more than once a day, and, when the case is not a bad one, once in two days will be sufficient. The best time for the operation is in the morning.

The plan of the operation varies. Some clinicians use the siphon arrangement, while others prefer the ordinary stomach pump. There is not much difference between the two, except that the siphon is more convenient and is not apt to suck the mucous membrane of the stomach into the holes of the tube, as happened in one published case in which the stomach-pump had been employed.

The patient will now be put upon his side, and the assistant will perform the operation of washing out the stomach in your presence, in just the same manner in which it has been done in the wards.

All that is necessary when the siphon is used is a tin vessel, an elastic tube, and an ordinary stomach-pump tube. When the tube has been inserted well into the stomach, the vessel containing the alkaline solution is held above the patient's head. You see that the liquid flows in rapidly—is now all gone—but the liquid does not flow back out of the tube as easily as it usually does. Probably there is some hard morsel of food clogging up the tube. This accident, or rather its possible occurrence, is the only reason why the stomach-pump is preferred by some. Its advocates hold, and with reason, that it is not possible for the tube of the stomach-pump to become clogged with food-morsels.

I think that, in future, I shall use the stomach-pump for this purpose myself, instead of the siphon arrangement. The operation is at best such a disagreeable one that it ought never to be undertaken rashly.

The conclusions which I have reached with regard to this operation of washing out the stomach are: (1) that it is an operation to be restricted to a particular group of cases—those in which we have some obstruction at the pylorus, with dilatation of the organ, so that the contents of the stomach are not readily passed out of it; (2) that if, accompanying the dilatation, there be structural disease of the stomach, such as cancer, washing out the stomach rarely does good, except it be to get rid of accumulations which cannot otherwise be removed.

Have I ever known of any good results following its use, where the cases were suitable ones for its employment? Admirable results. In such instances I regard it as being the best method of treatment at our command. Even in one case of ulcer of the stomach in which cicatrization has now occurred, and where there was constant vomiting and great emaciation, the patient made a slow but sure recovery under this plan of treatment, in conjunction with a carefully regulated diet.

Are there any other means to assist us in the treatment of the conditions you will, no doubt, and with perfect propriety, inquire. Nux vomica is a very important adjuvant. At the same time the diet must be regulated. Small quantities of solid, and not too much liquid food, must be given. If the fermenting contents of the stomach cannot be gotten rid of, and if you do not wish to make use of the washing-out process, a brisk cathartic will often be found to be of great assistance. In this way you are enabled to cause the mass lying in the stomach to pass out, and on into the bowel. Indeed, in all cases of dilatation of the stomach an occasional brisk purgative will be found to be a much better method of treatment than the old routine plan of administering emetics. The act of vomiting is always more or less exhausting, and in cases of great dilatation of the stomach it is often a matter of great difficulty to excite vomiting by any amount of emetics, since the muscles of the stomach, being so distended, are slow to react to irritants.

[The patient was brought before the class a few weeks later, and presented the following conditions: the vomiting had stopped entirely; the natural powers of the stomach had been so far restored that the patient was able to digest a moderate meal without any great inconvenience; his tongue was much cleaner, and his stomach, upon percussion, showed a well-defined decrease in the amount of dilatation.

As the vomiting began to stop, the sarcinæ in the matter vomited gradually disappeared. Dr. Da Costa attributed this decrease in the number of sarcinæ partly to the washing out of the stomach, and partly to the remedies employed to stop fermentation. These remedies consisted at first in one grain of concentrated carbolic acid, well diluted, and, later, in f. ʒ i. of sulphurous acid, in water, thrice daily.

It was thought that there was no longer any necessity for washing out the stomach (the man had received so much benefit from this washing that he grumbled considerably when the order was given to discontinue it), but that the patient should take ten drops of the tincture of nux vomica thrice daily, and should be allowed a little more varied diet, a small amount of sulphurous acid being given occasionally after meals. The bismuth had been long discontinued.]

BRIGHT'S DISEASE AS A RESULT OF EXPOSURE, OCCURRING IN A MALARIAL SUBJECT, AS DISTINGUISHED FROM THE SO-CALLED MALARIAL BRIGHT'S DISEASE.

The second case which I show you will be in some respects a continuation of some remarks made at the end of my last clinic on the subject of Bright's disease, except that we have to-day an illustration of the disease due to a different cause, and presenting several peculiarities with regard to pathology and treatment.

T. F——, æt. 46; has always been a healthy man until last August, when he had chills which were at first quotidian and then tertian, which continued a month in spite of treatment, and which have since recurred irregularly. The week before the patient's admission to the wards he had a very heavy chill, which recurred every day, and lasted an hour at a

time. These daily chills were followed by fever and sweating. There was, in fact, a very marked malarial impression. Three weeks ago, after a heavy chill, which was followed by sweating, the man exposed himself. This exposure was followed by puffiness of the face, and then, in the course of three or four days, by a moderate amount of anasarca. The urine became dark-colored and scanty. There was, however, no headache, vomiting, or pain in the back. Upon admission the man was very ill. His whole body was œdematous, scrotum included. There were some excoriations on the front aspect of the legs, from which serum exuded. The patient at the same time had the most decided evidence of the malarial cachexia written on every feature of his face. His spleen was somewhat enlarged, and the area of liver dulness was increased.

What was the cause of the dropsy? An examination of the urine answered the question for us at once. Its specific gravity was 1022, and it was heavy with albumen. The urinary salts were found to be normal. Microscopic examination of the urine showed the presence in it of red blood-corpuscles, and of renal granular epithelium, together with hyaline and small granular casts. Two days subsequent to the patient's admission he had another distinct outbreak of the malarial element, attended with a temperature of 105° during the first chill, of 97° during the intermission, and of 102° during the second chill. After this attack the patient was put thoroughly under the influence of quinia, and had no further malarial outbreak, although the cachexia still remains.

The case is very plainly one of Bright's disease, complicated with malaria, and the only remaining question is whether the Bright's disease has been due to the malaria, or whether it has only come on in a malarial subject, and has been really brought about by exposure to cold and damp.

Looking carefully at the record, and taking all the circumstances of the case into account, I have reached the conclusion that it is one of acute Bright's disease coming on in a subject whose system was weakened, and who was, therefore, to a certain extent, predisposed to the disease. It is not what is usually known as Bright's disease from malaria.

I will thus sum up for you the progress of the case: After the first few days there was no further febrile exacerbation. The temperature remained low, ranging from 97°–97½°–96°, being at times, in fact, a little lower than normal. You can still note the powerful malarial impression in the altered hue of the patient's face, which, by the way, is a very typical face.

I will see whether the internal organs have undergone any change. Percussion shows me that the splenic dulness has decreased by at least a finger's-breadth. It now barely extends down to the last rib. The liver dulness is now entirely normal. There is no dropsy in the abdomen or legs. What about the kidneys? The kidneys are vastly improved. There is now no blood in the urine, and only the merest trace of albumen and hyaline casts.

This brings us to the consideration of the question of diagnosis, and you will, no doubt, wish to know my grounds for regarding the case as one of acute tubal nephritis, coming on from cold and exposure in a person weakened by malaria, and not as a case of the so-called malarial Bright's disease. I have seen a large number of cases of Bright's disease following malaria, and am therefore moderately familiar with the disease. By malarial albuminuria I understand a condition characterized by albumen in the urine, with granular and hyaline tube-casts coming on slowly, associated with dropsy, and as gradually passing away. In the long run, and with proper treatment, such cases usually recover. Their very essence consists in their gradual development, with impaired blood, dropsy, and bloody urine. Such cases have no acute stage such as was present in this instance.

The prognosis is even more favorable in this case than in those of malarial Bright's disease. [The patient left the hospital entirely well.]

In what has our treatment consisted? We have kept the patient strictly in bed, have given him an occasional purgative, and for a few days kept him under heavy doses of quinia. The purgative used was gr. ½ of elaterium. As the dropsy seemed to be somewhat slow in disappearing, we gave him occasionally doses of the fluid extract of jaborandi, which produced free sweating. We soon reduced the dose of quinia from twenty to eight grains daily. With the hope of producing diuresis, we at first employed Basham's mixture, but as its usual happy effects did not seem to follow, we gave the patient instead gtt. xx. of the tincture of the chloride of iron thrice daily, and gr. xx. of the acetate of potassium and a wineglassful of the infusion of broom four times a day. The latter drugs proved valuable diuretics in the case. This treatment, as it has been successful, shall be continued. The dose of the iron shall be increased to xxx. gtt. thrice daily, or rather he shall be given this form of iron every other day, and on the alternate days we will give him a hypodermic injection of gr. iij. of the ammonio-citrate of iron dissolved in water, which plan of treatment I have often found to be followed by the most beneficial results. In only one instance has such an injection been followed by abscess and hardening of tissues. We will keep up the dose of broom for some time yet. Together with this medicinal treatment, the patient is getting good, nourishing diet, and we will still insist upon his spending the greater part of the day either in bed or on a couch. We will not allow him to go out of doors at all for some time, for fear of his catching a fresh cold. [This patient left the hospital shortly afterward, entirely well.]

ACUTE TUBAL NEPHRITIS ENGRAFTED UPON A PRE-EXISTING CHRONIC CONDITION.

You remember my calling your attention, at a preceding clinic, to a case of Bright's disease in a boy of seventeen. You will also, no doubt, remember that I told you that the case, in its then aspect, was an acute one, but that the acute attack had probably been engrafted on a previous chronic condition. When you last saw the patient he was very ill, but he has improved very much, so much so that you will hardly recognize him as the same person. His improvement has been solely due to our steady adherence to a plan of treatment consisting in an occasional vapor-bath, a dose of elaterium now and then, and in keeping the skin and kidneys acting by doses of half a drachm of the fluid extract of jaborandi thrice daily for ten days at a time. To these items we added a plan of treatment which I have pursued very much of late, namely, the use of moderate doses of quinia, to counteract the depressing influence of jaborandi upon the circulation. I have found that by giving a certain amount of quinia with the jaborandi I obtain its valuable diuretic influence without the depression which follows large doses of it given alone.

You see that the dropsy has entirely left the face, except in the neighborhood of the patient's eyes. There is only the merest trace of abdominal dropsy. The urinary secretion has increased from f ℥ xij to f ℥ xxxvj daily. It is, in fact, a little more copious than we care to have it. The amount of albumen has so far decreased that it does not at present form more than one-fourth the bulk of the urine in the test tube. Since the dropsy has disappeared and the secretion of the kidneys has been freely established, we have stopped the jaborandi and placed the patient on gtt xxx of the tincture of the chloride of iron, four times a day, with an occasional purgative. Having got rid of the renal dropsy, we shall further improve the condition of the kidneys and lessen the albuminuria by means of the iron. I think that this patient will soon be able to leave the hospital almost entirely recovered. You may look upon it as a very fair illustration of an acute attack engrafted upon a previous chronic condition.

Original Communications.

FRACTURE OF THE HUMERAL EPIPHYSIS IN OLD DISLOCATIONS OF THE ELBOW.

By THEODORE A. McGRAW, M.D.,

PROFESSOR OF SURGERY IN THE DETROIT MEDICAL COLLEGE.

The few cases of unreduced dislocation which I have seen have resulted in great and permanent disability.

The inability which almost invariably accompanies this injury to flex the forearm within an angle of 120° is in itself a great inconvenience.

Patients with backward luxation of the elbow-joint can neither feed nor dress themselves, nor comb their own hair, nor even write, except in a most constrained posture. I cannot understand, therefore, the timidity with which Hamilton, in his famous work, approaches this subject, for while he quotes some cases of old dislocations in which he attempted, with varying success, the replacement of the bones, he records many others in which the disability was very serious, and in which he advised non-interference.

It has seemed to me that so grave a disability should warrant almost any procedure which would offer hope of improvement, and it was with that feeling that I proceeded to operate in the case I am about to relate: A little girl of nine years fell and dislocated her right elbow. The irregular practitioner who was called upon to attend her failed to recognize the trouble, and treated the case as one of fracture with the arm in extension.

The accident occurred on October 2, 1877. Nine weeks afterward, Drs. Taylor, of Mt. Clemens, and Brownell, of Utica, saw the child, recognized the nature of the injury, and made a vain attempt at reduction. Six weeks later, and fifteen weeks after the reception of the injury, the child was brought to me for treatment. On examination I found the arm nearly extended. There was limited motion at the elbow, but flexion caused pain and had to be discontinued when it had reached an angle of 120°.

On the 26th of January, assisted by Drs. Brownell, Gowan, Reynolds, and others, and in the presence of my medical class, I had the child anæsthetized and attempted the reduction of the dislocation.

I first broke up the adhesions and tried the ordinary methods of reduction by manipulation. These failing, the pulleys were applied and extension made to the utmost practicable extent in every position of the arm. I then divided the tendon of the triceps subcutaneously and applied the extending force until motion in every direction seemed absolutely unrestricted, and yet, though every obstacle had apparently been ruptured, the luxation could not be reduced. During the manipulation something suddenly gave way and the deformity disappeared, and I thought for the moment that I had achieved success, careful examination showed, however, that the old abnormal relations of the olecranon and the condyles still persisted, and further investigation revealed a fracture of the humeral epiphysis and a displacement of the epiphysis forward upon the shaft in such a way as to permit of easy flexion of the elbow and an apparent disappearance of deformity.

Comparison of the two arms showed that the deformity had only changed in character and not disappeared, for the humerus of the injured side seemed now abnormally short in comparison with that of the other. I availed myself of the new conditions to secure better motion to the elbow-joint, and to so apply lateral angular splints as to permit the epiphysis to remain in its new position on the shaft.

No inflammation or bad symptoms of any kind interfered with the healing process. At the beginning of the second week in February, 1878, the patient left the hospital convalescent. Last month, nearly two years after the operation, I had occasion to examine the arm again, and found it in a most gratifying condition. The humerus was a little shorter than that of the opposite side. Flexion was nearly perfect, but extension could be made only to an angle of about 115°.

As the free flexion permitted almost every use to which the hand could be put, and as the limited extension prevented only such uses as would require the arm absolutely straight, it can be readily seen that so far as usefulness was concerned, the patient had been vastly benefited by the operation.

As regards beauty, the present deformity would not attract the notice of any casual observer, while the awkward position entailed by an elbow dislocation forces itself on the observation of all.

This case confirmed the truth of Erichsen's assertion that muscular contraction has nothing to do with the difficulty of reducing an old dislocation of the elbow.

Division of the triceps, although it made possible the utmost freedom of flexion, did not facilitate at all the reduction of the luxation.

This experience has made me doubt whether fracture of the olecranon after Crosby's method, actually permits reduction. Fracture of the olecranon would undoubtedly make possible the same free flexion as tricipital tenotomy. It would cause the disappearance of the principal deformity, viz.: the undue projection of the olecranon; but how it could in any way relieve any obstacles to reduction which tenotomy of the triceps had failed to overcome, I cannot understand.

Now, when we consider that the only positive test of the reduction or non-reduction of a posterior dislocation of the elbow consists in a careful comparison of the relations of the olecranon process to the condyles, it becomes evident that fracture of the olecranon destroys the only test by which we can establish the true position of the bones in relation to each other.

As fracture of the olecranon has given to such patients more useful extremities, as it has enabled them to flex the forearm upon the arm, it has, of right, a claim to be considered a proper procedure.

It may not, however, be regarded as a mode of reducing the dislocation, and of bringing the joint surfaces into their old normal relations until exact post-mortem observations shall have shown such to have been actually the case.

It is unfortunate that we do not, as yet, understand the actual pathology of an ancient elbow dislocation. It is evident to me that muscular contraction plays little or no part in opposing the reduction. It is inconceivable that the mere interlocking of the bones should make so strong an obstacle. I can believe only that the ligamentous structures which are ruptured at the time of injury become glued so firmly to the bones as to prevent their disentanglement.

When we consider the extreme loss of function caused by such a condition, it does not seem to me good surgery to dismiss such cases unrelieved.

Our surgical resources for the relief of a chronic dislocation of the elbow are first, attempts at reduction by manipulation and extension. These rarely succeed after the lapse of three or four weeks. Second, fracture of the olecranon. This procedure relieves the deformity, and by permitting free flexion adds immensely to the usefulness of the extremity. I have already stated the reasons for doubting whether it ever facilitates the actual reduction of the luxation. I feel especially justified in adopting this view when on reading Hamilton's record of cases, I find two of said cases in which he expressly states that, though certain of having reduced the ulna by fracture of the olecranon process, he had been unable to bring the radius into place. It may be a fair question to ask, how he could be certain that the ulna was in place after its relations with the condyles had been destroyed by fracture?

The third method of treating an ancient dislocation of the ulna is that which accident demonstrated to be of service in the case I have just related. This could occur, of course, only in young persons, before the union of the epiphysis with the shaft. It occurred in my case as I was flexing, and at the same time pulling with considerable force on the forearm. Had the tricipital tendon not been previously divided, it is probable that the olecranon process would have broken instead, and that I should to-day have labored under the delusion that I had thus actually reduced the luxation.

Extreme flexion of the forearm, in children suffering from an ancient dislocation of the elbow, will be liable to produce either a fracture of the olecranon or one of the humeral epiphysis. Either occurrence would vastly improve the condition of the joint. Subcutaneous incision of the ligamentous structures around the joint has not been followed, so far as I know, by any benefit. The lack of positive knowledge as regards the nature of the obstacles to reduction make the procedure too blind to be of service.

There still remains two possible means of improving an old dislocation of the elbow. Excision of the joint has all the dangers and all the possibilities of that operation when undertaken for other maladies. I do not care, in this connection, to dwell upon it.

The other remaining operation is one that suggests itself to me as feasible and as offering hopes of better results than nature could ever possibly accomplish in a neglected dislocation. I hold in reserve as a procedure, which I shall not hesitate to resort to if I ever get the opportunity in a suitable case, the incision of the joints under the antiseptic spray; the division of all ligamentous and muscular obstacles which prevent reduction; the replacement of the joint surfaces, and subsequent strict attention to all the details of the antiseptic treatment. The elbow should, of course, in such cases be put in rectangular splints. Healing, if it occurred without suppuration, might reasonably be expected to result in a good joint, with tolerably free motion. If suppuration should take place, the anchylosed arm would be infinitely more useful in a flexed position than when nearly extended.

ANATOMY AND PHYSIOLOGY OF THE CHORDA TYMPANI NERVE.

By HORATIO R. BIGELOW, M.D.,

WASHINGTON, D. C

In an article upon the chorda tympani nerve, published in the *Archives of Medicine* for June, I expressed the opinion, which I had formed after numerous careful dissections, that this nerve was not united to the lingual "fibril to fibril," as Professor Sappey had claimed it to be, but that it was inclosed with it in a common sheath, receiving its special sensory functions from the ganglion, upon the nerve of Wrisberg. Continued investigation of its anatomy and physiology have not only strengthened this view, but have led me to other conclusions which may properly supplement my previous communication.

The intermediary nerve of Wrisberg and the main trunk are so intimately associated, before the chorda tympani is given off, that their differentiation is attended with the utmost difficulty, so that it is impossible to assert with certainty from which branch the filaments of the chorda tympani are derived. The fibres of each may be separated in their integrity for some distance; up to the very point almost where the chorda tympani is given off, the facial and intermediary nerves continue as separate and distinct. Both from its dissection, as well as from a patient observation of its physiology, I am quite persuaded that the filaments of the chorda tympani are furnished entirely by the intermediary nerve. The experiments of Vulpian and Prevost, of Bernard and Moss, all confirm this view. The ultimate anatomy can only be traced by the use of reagents, and of a good lens mounted upon a tripod, the fibrils being "teased" out with a needle. In this way the nerve of Wrisberg may be traced up as an entity, though closely connected with the main trunk, and arising from it the filaments may be seen which unite to form the chorda tympani. In the same way we may trace into the *intumescentia gangliformis*, by using a power of 1,000 diam., the nerve fibrils of the intermediary nerve, in the processes of the ganglion, at their junction with the cell, and these may be traced into the granular protoplasm. So also, the chorda tympani may be separated from the lingual and followed up. The terminal filaments expanding into the taste-cells of the beakers, the bulbous expansion at the end being identical with the transparent nuclei. The lingual has nothing to do with gustation, only in so far as it is influenced by branches from the chorda tympani. Experiments made upon dogs, trained in the manner described by Bernard, for noting the impairment of taste, have led me to the following conclusions:

1. The chorda tympani nerve is distinct and integral throughout its entire length.

2. It is derived from the nerve of Wrisberg, and not from the facial.

3. Its especial sensory function is derived from the ganglion upon the nerve of Wrisberg, into the granular protoplasm of which the ultimate fibrils may be traced.

4. The lingual branch of the fifth presides over general sensibility only. Isolation of the chorda tympani as completely as possible destroys the sense of taste in the anterior two-thirds of the tongue, the fibres undergoing degeneration.

5. Section of the lingual destroys sensibility, but only modifies the sense of taste, this modification being due exclusively to the branches from the chorda tympani.

6. Section of the facial, behind the origin of the chorda tympani, destroys the sense of taste—*very little of it*, and this, not because the facial at this point contains gustatory filaments, but because the nerve is cut off suddenly from its supply, and has received such a shock that it undergoes degeneration. If the chorda tympani be drawn out at the point where we first notice its filaments of origin, and divided, the sense of taste will be almost entirely destroyed. If the nerve of Wrisberg be cut in the aqueduct behind the ganglion, the sense of taste is lost. From which it may be inferred that the intermediary nerve is continued in the chorda tympani, and that this latter is a carrier of the sense of taste from the cells in the intumescentia ganglioformis.

The difficulty of noting the impairment of taste in lower animals is extremely great, and one will fail often before arriving at satisfactory results. The shock following the section of any nerve within the cranial cavity necessarily modifies exact conclusions, and as Flint very justly observes ("Text-Book Human Physiology," p. 761), "We must remember the difficulty of such observations, and we are to rely mainly upon the unmistakable phenomena noted in cases of affection of the chorda tympani in the human subject." Paralysis of the facial, behind the origin of the chorda tympani, is attended with loss of taste in the anterior two-thirds of the tongue. But this is not due, as I believe, to the existence of gustatory filaments in the facial itself, but to the fact that the transmitted shock is so great as to destroy the functions of the ganglion upon the nerve of Wrisberg, and in this way inhibit the special characteristic of the chorda tympani as a carrier of the sense of taste. The sensibility of the tongue remains, because it derives its sensory power from a different source; the cells furnishing the lingual branch of the fifth are not interfered with in such cases of paralysis. It is a fact, however, that sensibility is often modified, owing to the inability of the nerve-fibre, by reason of a degeneration, resultant upon shock, to carry the sensation. If we isolate, so far as it may be possible so to do, with a proper regard for the life of the animal, both the chorda tympani and intermediary nerves, the sense of taste becomes greatly modified, and after a time almost entirely lost, the feeble sensa remaining being due to the fibrils which it was impossible to divide. If there were essential gustatory filaments in the facial, the sense of taste would persist in a greater degree than it does after the division of these two nerves. If we are to study the functions of the chorda tympani from its action in those morbid conditions affecting it, the nature of the *shock*, as well as the resultant influence engendered by contiguity of structure, or by actual contact, must never be lost sight of. Nerves, themselves unmjured, may suffer in their action by transmitted influences.

1502 14th st.

MEDICINAL SPRING WATERS.—No. 2.

By JOHN C. PETERS, M.D.,

SEE PAGE

In my first article I gave what I conceived to be a fair specimen of the ordinary way of thinking and writing about medicinal spring waters. The first point which will strike the reader is that all these famous waters are composed of very common and well-known, and exceedingly cheap, medicinal ingredients. First we have *water*, more or less pure; next, *carbonic acid gas*; third, *table salt*; fourth, *carbonate of soda*; fifth, *sulphate of soda*; sixth, *sulphate of magnesia*, or Epsom salts; seventh, *carbonate of magnesia*; eighth, *carbonate of lime*; ninth, *carbonate of magnesia*; tenth, *iron*; eleventh, *muriate of lime*; twelfth, *muriate of magnesia*, while the traces of *bromide of magnesium* (¼ grain), and the still smaller relics of *iodide of magnesium*, which are found in the so-called iodo-bromated waters of Kreuznach, and the atom of *chloride of thorium* in the Baden-Baden waters, to which such wonderful effects are attributed, border closely upon the ridiculous.

There is a glamour about mineral waters which is excusable, perhaps, among lay persons, but should not be encouraged by such eminent authorities as once was Virchow, who, however, now is perhaps as much a politician as a scientist. It does seem a prostitution of his great scientific name to find it attached to high-sounding certificates for waters like Seltzer, Soden, Giesshübler, Ems, Vichy, Apollinaris, etc., all of which are composed almost exclusively of water, carbonic acid gas, and varying quantities of common bicarbonate of soda. Carbonic-acid water, with a little extra soda, according to the taste of the individual, and in some instances with a due regard for his personal or constitutional requirements, includes the whole of the magic of these waters, except the changes of air, scene, habits, etc., which are involved when the waters are drunk at the fountain-head or source. Fashionable people and gourmands, or simple thirsty souls, may profitably, perhaps, discuss the various merits or pleasantnesses of these waters, for there are smaller and more objectionable topics which are frequently debated about by these and other less agreeable people; but the medical profession should place them upon their true basis, that of more or less pleasant, refreshing, and even useful table and slightly medicinal waters, but which do not greatly excel in their virtues common, but good carbonic-acid water, or carbonated soda-water. There is not the slightest doubt that all these waters are serviceable, not only to wine-bibbers and gluttons, but also for some very estimable people who are troubled with acidity, or biliousness, or chronic rheumatism, or gout, obesity, the slighter forms of gravel and renal disease, some catarrhal and feverish affections, and even various thickenings of various tissues, caseous and firmer deposits.

If simple justice were done by Virchow and others to all these pleasant and even delicious *soda-waters*, there would not be much to complain of. But to stand out as the enthusiastic champion of one, to the exclusion of the rest, is manifestly unfair, unscientific, and unprofessional. It is doubtful whether true Seltzer water, viz: that imported in stone jugs, has ever been absolutely rivalled or excelled by any other natural soda-water; and it is equally true that artificial Bright'n seltzer still holds its own as almost unequalled in its class. But Giesshübler and Apollinaris are so good and palatable, that they may

justly be classed with the old favorites of table-critics; and Saratoga seltzer should not be forgotten. It is a mere matter of taste, and perhaps mainly of prejudice, when the artificial carbonated and soda-waters of Schultz, Hanbury Smith, Warker, and others, are slighted. All these artificial waters are made of good filtered and very pure water, and excellent soda and carbonic-acid gas; well prepared according to fixed formulæ, and have all the advantages of undeviating prescriptions, always composed of the same chemically pure materials, in well-established proportions and quantities. Medically, the differences between them all scarcely exceed that which is said to exist between *tweedle-dum* and *tweedle-dee*, except that we do not like Tweedism in anything. As a mere matter of taste or opinion—and the highest taste and the most scientific opinion always has respect for the merits of all other rivals—the preference for one over the other of these natural or artificial preparations is a matter solely of individual right or judgment. But some insist upon their rights too arbitrarily, and value their opinions too highly, and give them too strongly for the common comfort or welfare; and thus great injury is done to the interests, peace of mind, and opinions of others. This is to be deprecated, especially in so highly an honorable body as the medical profession, which should be above all ordinary partisanship. Great injury is done to the public at large by these exclusive and enthusiastic preferences, especially when strengthened by certificates which are circulated in newspapers, medical journals, circulars, labels on bottles, etc., etc. The dignity of the medical profession is not heightened in the estimation of the public when it sees Virchow's once immaculate name on soda-water bottles, or bottles of solutions of common purgative salts, and mixtures of Epsom or Glauber salts, in carbonic-acid water.

(To be continued.)

SOME THOUGHTS

ON THE IMPORTANCE AND EFFICACY OF

TREATMENT BY INHALATION, AND MEDICATION AND SUSTENTATION BY THE SKIN.

By JAMES G. CLARK, M.D.,

WEST NEW BRIGHTON, STATEN ISLAND, N. Y.

I AM fully persuaded that a radical improvement in several respects will take place in the treatment of disease, and that those maladies heretofore so stubborn, and almost beyond the reach of remedies will, most of them, if not all, be brought much more within the control of remedial measures. These conclusions are not the result of mere theorizing, but are founded upon experience and large facilities for observation. I have been a practitioner of medicine for over thirty-five years, and for twenty-five years did as large a general practice as perhaps any man in the State. Attended several large hotels; for ten years the Home for Orphan Children of Seamen, and other public institutions. In these years have seen and treated a great amount and variety of disease, and am free to confess that I have often mourned (as doubtless every conscientious physician of extensive experience has) over the inefficiency of treatment in many cases, and that too after having been aided by the most skilful experts within my command. For the past few years have spent a good deal of time in visiting the medical men and hospitals of many of the capitals of Europe; and the more I see of the methods of managing disease, the more convinced am I of the room for improvement, and that better results should be reached.

The diseases afflicting the human family arise from various causes. Some from poisonous inhalations, many from congestions and inflammations. Some from the ingestion of deleterious substances, and some again from actual contact with disease, etc., etc. In all these there are more or less alteration and vitiation of the vital fluid and derangement of the circulation. Nature, in her efforts to relieve the system, endeavors to throw off the deleterious elements mostly by the skin. The skin, therefore, is one of the most important tissues of the body—perhaps the most important. Is more highly endowed with nerves and blood-vessels than any other, and, as more than half of all that goes into the body passes off by the skin, it will be seen at once that it is a most important, if not the most important, depurating and eliminating organ of the blood-organism. To keep the skin in a healthy condition and have it perform its functions physiologically is of the greatest importance. To assist it in eliminating the deleterious elements in disease should be the continuous effort of the physician.

To aid in accomplishing this, I have contrived an air-tight receptacle that will contain the patient, from the cervical region, in the recumbent position. To this is attached an air-pump, by which the desired quantity of air (as indicated by a gauge) may be pumped from within—the effect upon the surface of the patient being watched through two little glass windows, one opposite the chest, the other the lower part of the lower extremities. There is also an opening in the receptacle through which steam or medicated vapor may be introduced. The effect upon the body, when placed in this partial vacuum, will be readily understood by every one—viz., that the atmospheric pressure being removed to the desired extent, the blood rushes to the surface, the cutaneous capillaries become distended, and the surface glowing, internal congestions and inflammations are relieved; poisonous elements circulating in the deeper vessels, disturbing the nervous centres, and impairing the functions of the viscera, are brought to the periphery and thrown off by the pores of the skin, which have been previously opened by cleansing, refreshing, and purifying washes (which remove the epithelial débris), and then treated by appropriate medicinal preparations, which readily find their way into the capillaries and go bounding along with the circulation, neutralizing and rendering innocuous whatever is hurtful to the organism. The readiness with which absorption takes place through the skin is well shown by the following case, as also the efficacy of medication by the surface. Some fifteen years ago a babe, three months old, suffering from cholera infantum and attenuated to the last degree, was brought from the city to the Latourette House, Bergen Point, and came into my hands. Its intra-uterine life had been six and a half months. This was well attested. The little creature was ejecting everything given it; and what to do, at first, was a puzzle—but something must be done, for all the ladies in the house had fallen in love with the little handful of humanity, and if the whole world had contained but this one baby the mother could not have been more anxious for its recovery. So we enveloped it in nice, soft, juicy beefsteaks, renewing them as often as the heat

of the weather rendered necessary, preceding their application by a very delicate mechanical substance, giving to the mouth almost nothing, and thus we went on day by day.

The babe recovered, grew strong and well, and four years afterward became again my patient at Potter's Hotel (now St. Mark's), for a bad scald of the chest which she went through as bravely as if she'd been born at full term and had not had her life saved by lard-tasks externally applied. Another case forcibly illustrating the rapidity with which absorption takes place is given by Sir Te Hill: "A jockey had been for some time in training for a race, in which that gentleman was much interested, and had been reduced to the proper weight. On the morning of the trial, being much oppressed by thirst, he took one cup of tea; and shortly afterward his weight was found to have increased six pounds, so that he was incapacitated for riding. At least three-fourths of this increase was from cutaneous absorption, which function was suddenly stimulated by the cup of tea." I might give many other cases similar to that of the babes in my own practice, perhaps not quite so marked, but where the result was quite as favorable—fully demonstrating the efficacy and efficiency of peripheral medication and sustentation. Along with this form of treatment by the surface, goes admirably well the introduction of medicaments into the circulation by inhalation. This is a very easy and very powerful way of combating disease. As it is through the air passages that many pernicious elements enter the system, it would seem very natural that by the same ingress the correctives and antidotes should be sent; and all know how efficiently agents act given this way—as chloroform, nitrous-oxide gas, oxygen, etc.

In many diseases, as typhus and typhoid fever, and the typhoid stage of other diseases, the tongue and mucous membrane become hard, rough, and as dry as a chip. The lining of the stomach is mostly in the same condition (for the tongue is the mirror of the stomach), and medicines placed in it are of no avail, for there is no action, no absorption, and they lie there dead and inactive. Now, you might as well place a weasel in a tightly cemented room from which there is no point of exit, and expect it to rid the house of rats, as to expect medicines placed in the stomach under these circumstances to have any controlling or curative influence over disease; and yet this is just what is done over and over again, indeed all the time, by physicians of every school everywhere. Not so do medicines act when given by inhalation; for, carried to the delicate vesicular membrane in thorough solution, they quickly enter the circulation, and, unimpeded by any action of the gastric juice, commence their neutralizing and curative work at once, and if properly and judiciously administered in conjunction with the use of the vacuum receptacle, and proper applications to the surface, I am sure that many diseases that are now the opprobrium of the profession will be rendered much more amenable to treatment. Of course there are many affections that readily yield to treatment by the stomach. Indeed, I believe that one-half of all the ailments to which humanity is liable may be controlled by the "vis medicatrix naturæ" alone, and would get well without any treatment further than the proper regulation of diet and exercise. Then, again, there are some affections in which all remedies by the stomach are at times wholly inefficacious, even when that organ is in a good working condition. I remember a striking case of this sort in a young lady suffering from ovarian neuralgia, which came on regularly every morning, and was very severe. I used everything in the way of anti-periodics, anodynes, counter-irritants etc., that I thought applicable to the case, but with no apparent permanent good result. The father, tired of seeing his child suffering so, took her to a known homœopath in the city, and he encouraged them greatly by saying that the trouble was not ovarian, but in the kidneys, and that he'd make short work of it; but he was longer at the case than I was, and no more successful when the electro-chemical baths were instituted. The first one of which brought entire relief. I had at one of the hotels a case somewhat similar and severe case, in the management of which were associated with me three of the best physicians from the city, and in this case, too, medicine had only a very slight temporary effect. The cure was effected quickly and permanently on the tenth day by electricity. While I think this treatment applicable in most cases, it is more particularly so in those of internal congestions and inflammations, in eruptive and congestive fevers, and impaired circulation.

Take a case of double pneumonia in disease that for the past few years has been so fatal in New York City's, where the patient can hardly breathe from the pressure of the engorged blood-vessels upon the delicate air-vesicles and capillary bronchial tubes, and is being rapidly poisoned by the circulation of unaerated blood—can a more powerful method be conceived of for drawing away the blood and unloading these pulmonary vessels, than by placing the body in this vacuum receptacle and diverting the circulation to the surface, when the lung tissue, being relieved from pressure, an can be admitted, and medicaments and oxygen by inhalation? What, think you, are the chances for the patient thus relieved, as compared with his chances under the ordinary treatment?

The poison of scarlet fever is so deadly sometimes that it will destroy life in twenty-four or thirty-six hours. This I have seen more than once, and mourned over the helplessness of our art to save the beautiful child. Here, again, what could so powerfully and certainly bring the blood to the surface and expel the poison through the proper outlets?

Take paralysis dependent upon a clot in the brain, what process could so quickly and surely lessen the pressure and hasten the absorption of the clot as this?

Take typhus or typhoid fever, or the typhoid stage that any disease may run into, or the various forms of nervous affections so prevalent just now, dependent mostly upon engorgement about the nervous centres, causing cold hands and feet, and a morbid sensitiveness to low temperatures; or take chills and fever (the curse of so many localities), the essential conditions of the chill being a small, hard pulse, peripheral anæmia, and convulsive muscular contractions, caused by a congested condition of the deeper blood-vessels containing more or less malarial poison acting upon the nervous centres; and does not this treatment present itself as foremost and infinitely superior to the large deafening doses of quinine, or the new and lately more fashionable, but dangerous remedy, pilocarpin, which relaxes arterial tension, causes a determination of blood to the surface, and, by the diaphoresis induced by it, brings about muscular relaxation—all which the vacuum receptacle will do with more certainty and without danger. I might go on in this way for an indefinite time, but am persuaded that the simplicity, efficiency, and practicability of this form of treatment are apparent

to every one who will reflect for a moment, and must be admitted by all. I do conscientiously believe that by the inhalation of medicaments, carefully prepared and judiciously administered—by the application of medicaments, carefully prepared and properly applied, after the skin has been well cleansed (all dead epithelium being removed), together with the use of the receptacle, a new era in the treatment of disease will be inaugurated, and a success attained in the curing of the graver maladies that will surpass anything yet realized.

It has often occurred to me that the importance of atmospheric pressure, as affecting the health and general condition of mankind, is not sufficiently estimated. I believe with a celebrated writer, who said: "Give me the physical aspect of the country, and I'll give you the character of the inhabitants." And he might have added, the physical development also. All know that elevated situations for habitations are much healthier than those in the valley or low places. Some will say because the air is purer, and in this they are correct so far as they go; but it is well known that as we ascend, the atmospheric pressure lessens, and if we go high enough this will be unpleasantly demonstrated by blood issuing from parts of the body. When a suitable elevation is reached, the peripheral circulation is much increased; the action of the lungs is freer and fuller, and a feeling of exhilaration is experienced from the improved oxygenation of the blood. Therefore, how infinitely better it would be for the health of the denizens of cities to pass their summers among the mountains, than at the crowded places of fashionable resort! What a marked improvement there would be, not only in their physical, but mental condition (to say nothing of morals), in the course of two or three years' living rationally, exercising judiciously in the fine, exhilarating mountain air! One of my patients who suffered much from asthma, spent a winter at the Fifth Avenue Hotel. After a little he discovered that he could live much more comfortably, with much less dyspnœa, on the fifth floor than any lower down—and here, of course, he fixed his quarters. With the lessening of the surface-pressure his peripheral capillary circulation was increased, and his lungs correspondingly relieved. How large a number of persons suffering from lung trouble have been greatly benefited by living in the Adirondacks! One occasionally being obliged to remain there throughout the winter, as was the case with a physician of some note, who, while remaining in those mountains, enjoyed fair health; but each time, on coming to the city and remaining a short time, would have hemorrhages, night-sweats, and all the symptoms of rapid tuberculosis, rendering his flight to the mountains, and remaining there, imperative. Doubtless the importance and benefit of keeping the skin of animals in good condition is patent to all, for no animal will thrive and do well unless this be the case.

For many years I have been a strong advocate for the clipping of horses, and invariably have it done every winter on every horse whose hair is too long and thick to admit freely of the brush and curry-comb reaching the skin. Some years ago I had a horse who threw out early in the fall a very thick, heavy coat. Soon the legs began to swell, which increased daily, notwithstanding the giving of purgatives, diuretics, and free rubbing, all which were resorted to, as I did not want to clip so early; but all of no avail. The horse was clipped. A greasy scum all over his skin (which the comb and brush could not reach) was removed by a wash of whiskey, water, and borax; and *now*, after a drive, all swelling was gone and did not return—and in eating, driving, and feeding he was a new horse.

Clipping the horse when the hair is coarse, thick, and long, is the very best thing that can be done, for he will do a third more work on a third less feed, and is a merciful and not a cruel procedure. I also recommend the clipping of cattle that are being fatted, where the hair is long and coarse, believing—indeed, knowing—that such cattle would fatten much easier, and the meat would be more tender and much sweeter.

In a word, I have long been impressed with the belief that not a tithe of the attention to the condition of the skin in disease, and what may be effected by medication and sustentation thereby, is given by physicians, and until this is done, the success that should be attained will not be reached.

True, Europe has its mud-baths, and Philadelphia its mud-poultices; and we have Turkish baths and Russian baths, and all kinds of baths, and all are good as far as they go; but, to our mind, repeated daily thorough cleansing of the skin by medicated washes, and the insuring a free peripheral capillary circulation, are the prime essentials in the treatment of disease.

MULTILOCULAR OVARIAN CYSTS; SEMI-SOLID CONTENTS; OVARIOTOMY; RECOVERY.

By G. E. BENSON, M.D.,

HUDSON, N. Y.

Mrs. M——, aged forty-three; healthy-looking, and robust; the mother of eight children, the youngest two and a half years old, living in a part of the city where sanitary laws and regulations are little observed, was seen by me in March last, for relief of dysuria. The catheter was passed, and appropriate remedies advised, with some relief to the symptoms. When seen again, in August, the vesical irritation was not complained of, but the abdomen was greatly enlarged, though not uniformly so. In the right groin, from a little above Poupart's ligament to a line on a level with the umbilicus, was a globular mass, firm, but fluctuating; easily defined and perceptible in outline to the eye when the patient lay upon her back; in the left side was a similar, but larger mass, not so low down, but extending upward almost to the false ribs; and between these masses was a distinct depression in the median line, giving the appearance of two distinct tumors. The uterine sound was passed nearly three inches, and a little to the left, and easily movable. The menses appeared every three weeks, but usually in less than normal quantity. The hypodermic needle was plunged into both masses, and a straw-colored fluid obtained, which differed so much in appearance as to lead to the belief that the cysts were separated by partition walls, or that both ovaries were diseased. A distinct wave was communicated, by striking one side, to the hand placed over the other.

On October 1st I was sent for in haste and found the patient suffering from severe pain in the abdomen, which was now very much distended and tender upon pressure; skin hot; pulse 120; temperature 103°; respirations 24. A hypodermic injection of ¼ grain of sulph. morphia was given; turpentine fomentation applied; and by the aspirator about two pints of fluid withdrawn, with relief to the symptoms

in a few hours. From this time upon the use of quinine, tincture of iron, and an occasional anodyne, she improved up to the day of operation, although she was not able to sit up. The pulse remained near 100; the appetite was poor. Slept little, unable to lie well down from the distention.

On October 6th, after consultation and with the hope that the patient would not at any future time be in a better condition, if as well, it was determined to attempt to give her relief by an operation. At this time the pulse was 102, not full; temperature 101½; tongue slightly coated; had slept fairly during the night from the effects of an anodyne; had two motions yesterday.

When under the effects of ether, an incision was made from just below the umbilicus to near the pubes in the median line. The cellular and adipose tissues were engorged with blood; and the peritoneum, when reached and lightly opened, gave out to a large quantity not measured of clear straw-colored fluid. The incision was completed, the tumor came in view, was pierced with a trocar, and near two quarts of fluid evacuated. By directing the canula in different directions it was ascertained that the remaining contents were semi-solid. Several bands of adhesion of a recent date, were in front and to the left side, which were easily separated; but while passing the hand around to the right side, the cyst-wall burst, and let out a considerable quantity of purulent-looking fluid, which was to a great degree evacuated externally by inclining the patient to the side and pressing together the sides of the wound. Very firm and old adhesions extended to the right side of the pelvic cavity, which were with difficulty broken by the fingers, and without any subsequent hemorrhage. The incision was extended two inches above the umbilicus, the tumor (weighing twenty-five pounds) turned out; the pedicle, found to be of fair length, was transfixed with a carbolized strong silk ligature, tied and separated.

The intestines were mahogany color, very vascular, appearing like mucous surfaces. The peritoneum was mottled with reddish patches of adventitious membrane and very vascular, scarcely retaining any resemblance to healthy serous membrane. The fluid remaining was absorbed by balls of carbolized lint, the wound closed with silver wire sutures, including the peritoneum, the pedicle brought out at the lower angle and retained by transfixing with a pin, aided by silver sutures in upper and lower border passing through the edges of the incision; a drainage-tube passed down into the pelvic cavity, the usual dressings applied, and the patient was carried to her bed.

For forty-eight hours no notes were kept. The pulse was fast, feeble, and irregular; temperature but little raised; slept little; took iced milk freely, but could not retain brandy. Rectal injections not retained.

October 8th.—Reaction occurred this morning. Sleeps more quietly, and during the day four or five hours. 10 P.M.: Pulse 96 to 108, firm and of fair volume; temperature 102½, respirations 18; urine, twelve ounces in twenty-four hours; skin warm and dry; tongue slightly coated and moist; stomach retains plenty of iced milk and cream, but will tolerate neither brandy nor quinine. The bowels are quiet, have not moved since the 7th at noon; mind clear. Ordered three grains of sulphate of quinine, one ounce of brandy and one ounce of cream as an enema; to be followed by a two-grain opium suppository. Repeat enema in six hours.

October 9th, 9 A.M.—Pulse 108; temperature 102½; skin moist, abdomen more distended than yesterday, three motions of bowels last night, slept two or three hours, mind clear, no vomiting. The injection was not repeated. A suppository was given at 4 A.M. and again at 9. Continue iced milk, and give brandy in teaspoonful doses. 9 P.M.: Pulse 104 to 108, respirations 20, slept half of the day; bowels moved once; four ounces of urine drawn—not albuminous. Takes plenty of milk. Ordered half an ounce of brandy every hour and a suppository every four or six hours, as required.

October 10th, 9 A.M.—Slept the most of the night; had two movements of bowels, mostly flatus, which relieved the tympanitic distention; pulse 102 to 108; temperature 101½; skin moist, wound dressed and looks well, mostly united; drainage-tube has slipped out; a serous fluid drains away from the lower angle of wound; mind clear, has taken two ounces of brandy during the night. 9 P.M.: Pulse 100 to 104; vomits during the day from heat of atmosphere; bowels have not moved to-day; sleeps the most of the time; temperature 99°; draw off eight ounces of urine. Ordered half a goblet of iced milk and half an ounce of brandy every hour. Suppository at usual intervals.

October 11th, 9 A.M.—Slept well during the night; pulse 96, regular; temperature 99; tongue moist; tympanites much less, discharge very free at lower angle of the wound; slight motion of the bowels this morning of more consistence. 9 P.M.: Pulse 102; temperature 101°; tongue moist; bowels moved once; sleeps half of the time. Continue treatment.

October 12th, 9 A.M.—Passed a restless night; pulse 130, soft, and a little irregular; temperature 97; one motion, considerable discharge from abdomen; increase the quantity of brandy, otherwise continue. 9 P.M.: Pulse 140; respirations 28; temperature 100; sleeps well; two motions, which are yellow and consistent; tongue moist; slight coldness of extremities. Has taken to-day one quart of milk and eight ounces of brandy. Ordered two grains of quinine every two hours.

October 13th.—During to-day the average pulse is 140, not steady; temperature normal; two motions; no vomiting; morale good. Increase the brandy to a pint in twenty-four hours, also give fifteen drops of tincture of muriate of iron every two hours. Quinine agrees well. Large discharge of pus from lower angle and from one side of the pedicle.

October 14th, 9 A.M.—Pulse 140, a little firmer; temperature 99½; sleeps well; takes a pint of brandy a day without inconvenience; bowels quiet; tolerates iron well; less discharge of pus from abdomen; coughs some. 9 P.M.: Pulse 130; temperature 98; one motion; had one suppository to-day. Ordered one raw egg in milk every four hours. Other treatment the same.

October 15th.—During the whole of this day the general condition has changed but little. Pulse average is 130, more regular and firm; had one suppository in early morning; respirations 24; temperature normal. Takes, in twenty-four hours, a pint of brandy, six eggs, two and a half quarts of milk, fifteen drops of iron every four hours, and two grains of quinine every two hours.

October 17th.—Since last report the pulse has improved in volume, but remains 130 to 140; temperature nearly normal, though last evening it was 102—now (9 A.M.) 100½; respirations 24; bowels confined; urine free. Takes the same quantity of brandy, milk, eggs and iron, and this afternoon a little

hashed rare beefsteak. Both ligatures from pedicle came off to-day. Some drainage of pus from abdomen. Patient cheerful.

October 18th.—Passed a good night. Pulse 120, and better; temperature normal; wound discharge purulent; small slough of cellular tissue at site of pedicle; bowels quiet. No change of treatment.

October 19th, 9 P.M.—There is little change. Pulse 120 to 130; temperature normal; ate to-day chicken with broth; continue six eggs a day and half the quantity of brandy. Quinine continued.

October 20th, 9 A.M.—Had a good night. Pulse 108 to 112, and firmer; temperature normal; tongue clean; no motion of bowels in forty-eight hours. Ordered warm-water enema. Continue treatment. Is improving.

October 21st.—Pulse 96 to 108; sleeps well; tongue clean. Breakfast was toast and cup of coffee. Takes less brandy. Continue milk and eggs.

October 22d.—Pulse 78, and regular. Ordered quinine and iron every three hours. Continue eggs and milk, and diminish the brandy.

October 24th.—Pulse 76; appetite good; bowels soluble by the aid of enemas.

The improvement has been uninterrupted to the date of this report of the case (November 18th). The site of the pedicle is not entirely healed, and there is a slight purulent discharge from beneath, but probably not from the peritoneal cavity. Success has been owing, no doubt, to the free drainage, and to the ability to retain, with no vomiting, a large quantity of stimulus and nutritious food. Neither peritonitis nor septicæmia, to any great degree, seemed to attend the progress of the case.

Progress of Medical Science.

On the Effects of Tayuya in Syphilis.—Prof. Geber, of Klausenburg, reports in extenso with the histories of cases, the results of an extended trial of the tincture of tayuya in venereal diseases. He employed it in forty-seven cases, which included cases of soft and indurated chancres, and of macular, papular, pustular, and ulcerated syphilides. He administered it internally and by subcutaneous injection, using doses in some cases much greater than those usually recommended; he also employed it externally as a wash. The results of his experiments may be summed up as follows: Tayuya checked pretty rapidly the progress of soft chancres, and caused even gangrenous sores to improve in a relatively short time, but complete recovery took place very slowly under its influence. In hard chancres it was useless, as it hastened very little, if at all, the progress of cicatrization, and had absolutely no effect on the induration. When administered internally in cases of constitutional syphilis, the results were so far negative that it remained a question whether, in the few cases in which the eruptions disappeared under its use, the improvement was really due to the tincture of tayuya. In no case could its effects be regarded as at all comparable to those of iodide of potassium or of mercury administered internally. When employed subcutaneously it effected a complete cure in a few cases, and produced improvement in others; in the more severe cases, however, it either proved entirely useless, or the slight improvement secured was obtained at such an outlay of time and pain, that the method of treatment could not be compared with the subcutaneous injection of corrosive sublimate or with the inunction cure.

In cases of ulcerated papules, tayuya, employed locally, produced cicatrization rapidly, but had absolutely no effect in hastening the resorption of the infiltration. The most valuable effects were observed in cases of papular syphilides of the mouth, which disappeared with satisfactory rapidity when painted with tayuya. Here, however, it must be assumed to have acted less as a specific against syphilis than as a styptic, since equally good effects can be obtained with solutions of nitrate of silver, tannin, etc. Prof. Geber concludes with the expression of his conviction that the tincture of tayuya is not destined to usurp the place of either of the old antisyphilitic remedies, to which it will always hold a very inferior position.—*Vierteljahresschrift f. Dermat. u. Syph.*, 1879, 2 and 3 Heft.

A Case of Cysticercus Cellulosæ Cutaneus.—Dr. Schiff, of Vienna, reports a case of multiple subcutaneous tumors in which the diagnosis of cysticercus cellulosæ cutaneus was made and verified by microscopical examination. The affection seems to be a rare one in Vienna, or, at all events, it has scarcely ever been recognized there during life, although Rokitansky had met with it several times in the dissecting-room. Dr. Schiff's patient presented a large number of tumors scattered all over the body, and varying in size from a pea to a hazelnut. The tumors were situated under the skin in the subcutaneous connective tissue, and were only loosely attached to the skin and the subjacent structures, as was evident from their mobility. Their consistence was rather difficult to define, as they felt hard like cartilage, and at the same time possessed a certain elasticity. Their surface was invariably smooth. The patient, an intelligent young man, stated that he had noticed the first tumor a year previously, and that subsequently the others had made their appearance at short intervals. About the time the first tumor appeared, the patient had an epileptiform attack, which was repeated several times during the year. He also suffered frequently from attacks of nausea, and pains throughout the entire body. These symptoms were thought by Dr. Schiff to be due to the presence of cysticerci in the brain. The patient was also subject to a peculiarly severe muscular tremor of the entire body, but particularly of the arms, which had first appeared at the age of ten years, after an attack of typhoid.—*Vierteljahresschrift. für Dermat. u. Syph*, 1879, 2 and 3 Heft.

Cholelithiasis as a Cause of Cirrhosis Hepatis.—Cases of cirrhosis due to cholelithiasis have been recorded by several observers, but they are still so rare that the following case from the practice of Dr. Roller, of Trier, possesses considerable interest: A woman, 69 years of age, who had never been addicted to drink, died after suffering for some months from the usual symptoms of cirrhosis of the liver. The autopsy showed general peritonitis of old standing, with signs of a recent inflammatory exacerbation; a perfect anatomical picture of interstitial hepatitis; a gall-bladder presenting the residue of old inflammation, and containing a large gall-stone. As in this case alcoholism could be absolutely excluded, the gall-stone was regarded as the primary cause of the hepatic disease. The various steps of the morbid process were thought to be as follows: First, the gall-stone excited an inflammation of the gall-bladder which resulted in thickening of its walls. From this starting-point the inflammation extended in all direc-

tions, but particularly to the tarry evacuations, as was evidenced by the blackness of the adhesions which bound the right thorax to the gall-bladder. The inflammation except into the liver along the pathway furnished by the serous capsule, here it led to the development of new connective tissue and the resulting cirrhosis.—*Berliner Klin. Wochen.*, No. 42, 1879.

NITRITE OF AMYL IN ACUTE.—Dr. W. E. Saunders, of Lahore, recommends the use of nitrite of amyl to cut short the paroxysms of fever. He has found that the amyl removes the attack in about one-third the usual time, and, in most cases, the fever does not return. He mixes the nitrite with equal parts of oil of coriander, to render it less volatile and to cover its odor, and administers four drops of the mixture on a small piece of lint, permitting the inhalation to continue until flushing of the surface and a sensation of warmth is perceived. Profuse perspiration sets in within a few minutes, and the attack speedily ends. When administered in the cold stage, both the hot and sweating stages are sometimes avoided.—*The Buffalo Medical and Surgical Journal*, December, 1879.

PERITYPHLITIC ABSCESS ASPIRATED THROUGH THE RECTUM.—A very interesting case of perityphlitic abscess, successfully treated by aspiration through the rectum, is reported by Dr. L. D. Merriam, of Conneaut, Ohio. After running a favorable course, fluctuation was discovered on the twelfth day at the right side of the rectum, about two and a half inches from the anus. On the fourteenth day the abscess was punctured with the largest needle of Dieulafoy's aspirator, and one pint and three-quarters of fetid pus drawn off. No pus was formed after the operation, and the patient was discharged cured two weeks later.—*Buffalo Medical and Surgical Journal*, December, 1879.

BALSAM OF PERU IN PRURITUS.—In a communication to the *Deutsche Med. Wochen.*, No. 34, Dr. Auerbach, of Berlin, states that having, in common with so many other practitioners, found the balsam of Peru a most valuable remedy in itch, he has for some time past used it in the treatment of pruritus, with the greatest success. After the first rubbing into the part affected, great relief is obtained, and in a few days a cure results. He relates a very obstinate case, which, after resisting all kinds of treatment for years, was speedily cured by the balsam.—*The Medical News and Library*, December, 1879.

A CASE OF "RECURRING FIBROID."—An interesting case of a myxo-sarcoma of the back, upon which twelve operations were performed in thirty-nine years, is reported by Dr. Green, of Elizabeth, N. J. It is probable that the growth first developed from the soft tissues of the back, but after the second operation the recurrence of the tumor was always accompanied by partial paralysis of the lower extremities, and at each successive attempt at removal it was found necessary to advance further and further into the space between the second and third dorsal vertebræ, in which direction the neoplasm was constantly extending. Each operation succeeded in relieving the paralytic symptoms, either partially or completely, with the exception of the last, which was performed two months before death took place, and from which no relief was experienced. At the autopsy the left pleural cavity was found filled with partially coagulated blood, which came from the posterior and upper portion of the lung, at which point the pulmonary substance was broken down from the pressure of the advancing tumor. The mass of the tumor was situated in the posterior mediastinum, and was at least seventeen inches in circumference and weighed about a pound and a half. It was pronounced by Drs. O. Heitzman and J. B. Hunter, of New York, to be a myxo-sarcoma. The large mass in the thorax was continuous with a smaller one passing through between the second and third ribs of the left side to the corresponding intervertebral foramen, and through this to the interior of the spinal canal, in which situation the growth was about the size of a small cherry, and was loosely attached to the dura mater. The meninges at the point were thickened and opaque. The second and third dorsal vertebræ were roughened and partly absorbed near the intervertebral foramen, by the pressure of the tumor.

NITRITE OF AMYL IN UTERINE HEMORRHAGE.—For some years Dr. Koechlin has, with great benefit, made use of warm fomentations to the head in cases of uterine hemorrhage, the object of these applications being to prevent anæmia of the brain, and of the heart. Convinced of the success of this mode of treatment, and supposing the result to be due to the rapid dilatation of the cerebral vessels, Mr. Kerr argued that in nitrite of amyl we had a more rapidly acting and more powerful agent to produce a similar effect. This idea occurred to him when attending a case of rather severe *post-partum* hemorrhage; and, happening to have some of the drug with him, he at once put his theory into practice by administering five minims, by means of a Skinner's inhaler, with immediate and most satisfactory results. The hemorrhage ceased at once, and permanently, and the patient was restored from a state of collapse. Indeed, in this latter respect, its effect was only comparable to that of the hypodermic injection of ether. Mr. Kerr has not been able to find any notice of nitrite of amyl having been heretofore used with the above views, and, of course, a single case would hardly suffice for a general inference, but he promises to give the medicine a more extended trial.—*The British Medical Journal*, November 1, 1879.

THE TREATMENT OF MUCOUS POLYPUS OF THE NOSE.—In some cases of polypus of the nose, Mr. Reginald Harrison, F.R.C.S., has recently been adopting the following treatment, which has given good results. In structure, these growths consist of little more than connective tissue infiltrated with serum, and enclosed with something resembling mucous membrane; when removed by avulsion and exposed to the atmosphere, they rapidly shrivel by the escape of their serum; their distended grape-like appearance being exchanged in a short time for that represented by little more than a few shreds of connective tissue. The treatment adopted consisted in freely puncturing these growths from the anterior nares by means of an ordinary acupuncture-needle, thus allowing the fluid of which they largely consist to drain away. To prevent them from refilling, a solution of carbolic acid and glycerine, which has a most marked drying-up effect, is daily injected into the nostrils for some time. In this way many cases were dealt with successfully where the growths were of a limited nature and the patient averse to their avulsion.—*The British Medical Journal*, November 15, 1879.

THE TREATMENT OF PORT-WINE MARK.—Vertical linear scarification, first proposed by Mr. Balmanno Squire as a remedy for port-wine mark, has in many instances been found less efficient than was hoped,

owing to the fact that the operation did not effectually cut off the supply of blood derived from the tissues immediately beneath the mark. To effect this object, Mr. Squire proposes to use oblique instead of vertical incisions, by which means the blood-supply to the over-vascular skin may be cut off in all directions, except through those limited channels which subsequently become re-established. Two operations are necessary. At the first, after freezing the skin with the ether-spray, the affected part is cut with a scalpel into a series of minute squares; but the instrument, instead of entering the skin perpendicularly, enters it obliquely—that is to say, at an angle of 45 deg. with the surface, so as to divide the skin, not into a series of vertical slices, but into a series of slanting flaps. The second operation is precisely the same as the first, only the slants are precisely the opposite of those used on the first occasion. Bleeding is almost absolutely prevented by exercising effective pressure on the surface operated upon for about ten minutes continuously.

Mr. Squire is now engaged in devising the construction of an instrument with many blades, for the prompt performance of this operation. It is an instrument similar in many respects to his (vertical) multiple linear scarifier, which, perhaps, explains itself sufficiently by its name.—*The Medical Press and Circular*, Nov. 26, 1879.

Unusual Development of Keloid in Small-pox Scars.—Dr. Goodhart presented to the Clinical Society of London an interesting case of keloid which developed in the scars left by an attack of small-pox. The patient was sixteen and a half years of age. He was in bed four months, and during that time the present disease came on. Since then it has been slowly decreasing. The face and neck, shoulders and upper extremities, and legs are the parts most affected. On the thighs it attacked the seat of old bed-sores, and over each great trochanter and over the sacrum there is a similar keloid scar. The appearances vary somewhat in different parts. The case was presented to the Society, first, because it seemed to be a very unusual extent of development of keloid, and in reference to its etiology it seemed possible that in the cicatrices of small-pox there may be some unusual facility afforded to such a growth as this, since keloid has been observed to take place not unfrequently in vaccination scars; secondly, to hear from any member who may have seen a similar case, whether it is justifiable to hold out to the patient a hope of ultimate cure; and thirdly, it was desired to show the case at an early stage, that, if anything unusual happened, he might be exhibited again at some future time.

In the discussion which followed, but little light was thrown on the question of prognosis. Mr. Heath considered the case to resemble in character the ordinary keloid, but unlike the variety known as Addison's. He had not known a keloid developed after a burn to disappear. Mr. Gant drew attention to the fact that one of the most interesting features of the case is the marked symmetry of the growth. He thought the development of the keloid might be intimately dependent on the condition of the blood, and he further showed how the influence thus exerted can be traced in numerous instances. Mr. Golding Bird detailed a case of which he was himself the subject, in which keloid succeeded to a boil, and, continuing to grow for a year, was raised as much as one-third of an inch from the shoulder, and as large as a split hazel-nut. At the present time, three years after, the skin presents only a white scar.—*The Medical Press and Circular*, Nov. 19, 1879.

Enlargement of the Bronchial Glands in Whooping-cough.—Dr. Noël Guéneau de Mussy considers the peculiar character of the cough, and the spasmodic symptoms of pertussis, to be due to the pressure of enlarged bronchial lymphatic glands upon the vagus. The following are the reasons upon which he founds his theory:

1. There is a close resemblance between the fits of cough in some cases of bronchial adenopathy and the fits of whooping-cough.

2. The persistence of whooping-cough during months and years is easily to be understood if this spasmodic cough be consecutive to the enlargement of the bronchial glands; but it would be difficult to explain if it is to be considered as the continuation of the primary disease. Whooping-cough has a great affinity with eruptive fevers, and consequently would be incompatible with chronicity. The enlargement of the lymphatic glands, on the other hand, may outline the irritation which produced it.

3. It is easy to explain by this theory the seemingly new attacks of whooping-cough which any irritation of the respiratory organs may excite after the disease has apparently subsided; a fresh congestion is added to that which has not thoroughly disappeared, or to a congestive disposition left by the whooping-cough in the glandular tissue.

4. The appearance of the characteristic cough only in the second, or even the third week of the disease, is easily to be understood, if it succeed an enlargement of the bronchial glands, which is evolved more or less slowly, and only produces irritating action on the inferior laryngeal, or other parts of the vagus nerve, when it has acquired a certain degree of development.

5. It is yet to be understood that this characteristic cough may be absent in the case of persons who, living in the midst of whooping-cough patients, and not having previously themselves been affected with that disease, present a cough which persists during several weeks—a sort of mitigated whooping-cough—when the glandular enlargement was little developed.

6. Vomiting may also be traced to the same morbid condition, and it is probably more frequently excited by adenopathy of the left than of the right side. This prevalence of vomiting in the enlargement of the left lymphatic glands may be explained by the greater share which the left pneumogastric nerve has in the innervation, and consequently in the motricity of the stomach.

7. The compression of the laryngeal nerve by enlarged glands explains the cases of aphonia, generally transitory, but which has been known to exist for four years in a case exhibiting all the signs of an enlargement of the left bronchial glands.—*The British Medical Journal*, Oct. 25, 1879.

Discussion on Antiseptic Surgery.—A very important debate on the subject of antiseptic surgery took place at the Metropolitan Counties' branch of the British Medical Association in London, Dec. 3d. It was opened by Mr. MacCormac, who spoke in defense of the Lister method. Mr. Bryant, Mr. Barwell, Spencer Wells, and T. Smith followed, and the discussion was closed by Prof. Lister himself. Mr. Bryant commended, but did not advocate the Lister method. The others spoke more or less favorably about it.

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THE AMERICAN MEDICAL ASSOCIATION.

THE coming meeting of the American Medical Association, which is to be held in New York, has every promise of being a success. Already the committee of arrangements have had several meetings, suitable buildings have been secured, and the necessary steps have been taken to provide for social as well as scientific entertainments. In view of the large number of delegates who will probably attend, it is quite desirable that the work of the sections should be thoroughly systematized, so that every one who has anything to say should have the opportunity of saying it within a reasonable space of time. To such an end, the proper way would be for each delegate intending to read a paper to notify the Secretary of the Committee of Arrangements, at the same time sending an abstract of the same.

We have, time and time again, deprecated the practice of reading long papers before medical societies. It has been said of a successful clergyman, that he never expected to convert any one if his sermon extended beyond twenty minutes in length. If readers of medical papers could bear this in mind and apply it to their own case, it would be placing the listeners under lasting obligations. We do not mean to say that each author should not attempt to exhaust his subject and work it up in detail, but simply that such a paper, as a whole, should not be inflicted upon the sections. There never is time for such things. Every one is tired before the discussion commences. The proper way to meet the practical requirements of the meeting, is to read the papers in abstract, bringing out in the latter any points which may be necessary to invite discussion. Then every member has an opportunity for the expression of his particular views, at the same time every opportunity is offered for the presentation of a large number of papers. As a matter of course, the papers themselves can be published in full in the Transactions and read at leisure.

Another advantage in furnishing the communications in abstract is that the committee will thereby be able to furnish members with all the information necessary to prepare them for the intelligent discussion of the various subjects. This was done with excellent result at the recent meeting of the International Medical Congress at Philadelphia, and we do not see why the plan could not bear repetition during the coming meeting of the Association.

The committee ask us to aid them in bringing this matter before delegates intending to be present at the coming meeting, and in urging the adoption of the necessary means to this end. We do so with great heartiness, convinced that the plan of systematizing the work is an excellent one, and well calculated to meet all the possible requirements.

THE ADDRESS OF THE STATE COMMISSIONER IN LUNACY. We have referred to the fact that an address was delivered by Dr. Ordronaux, January 6th, before a distinguished audience, at the residence of Dr. C. R. Agnew. The earnest efforts which Dr. Agnew has made for a number of years to secure insane asylum reform, are well known, and have always invited our sympathy and commanded our respect. Hence we were led to expect that the call for the meeting referred to was of more than usual significance, and promised more than ordinary results. Perhaps because so much was expected, we realized our disappointment the more. We say this in all truth and charity towards our accomplished and esteemed friend, the Commissioner of Lunacy.

Dr. Ordronaux delivered an address which was learned and interesting, and marked by those rhetorical graces and felicities of expression which always characterize his remarks. He traced the origin of insane asylums abroad and in this country, and showed how much had been done everywhere for the insane, but more especially in New York. The amount of money expended in our State upon this class, and the perfection of the laws concerning the insane, were dwelt upon. The speaker concluded by saying that, as regards reform, none was needed, for there were no abuses to correct; or if there were a few in the county asylums, these could only be effected as the lapse of time brought about a change in public sentiment. Some very unpleasant things were intimated in regard to those persons who were ignorantly and hastily agitating the subject.

Dr. Ordronaux is a person whom official position gives weight to his words, and whose character raises him above all petty insinuations or attacks. But his statement that no reform is needed, that agitation is uncalled for, and that the agitators are either foolish or malicious, must naturally arouse some positive emotions of opposition. Have we, then, been mis-

taken in all our facts and statements? Did not our Governor condemn the extravagance in asylum buildings? Has not the Chairman of the State Board of Charities eloquently lamented the condition of the county insane? Could anything more scathing have been said by the English visitor to our asylums, Dr. Bucknill? If everything is perfect, why was a commissioner sent to Europe to study asylums there, and bring back advice and suggestions, which have not been acted on? In the recent message of the Governor to the State Legislature, he says: "The condition of the insane in the poorhouses of the State is pitiable in the extreme, and urgently demands attention." We heard nothing about this from Dr. Ordronaux. Does the commissioner wish the present mammoth asylum system perpetuated? Are acute and chronic cases still to be huddled together in vast colonies? He has admitted in his own reports that the number of insane in the State is increasing out of proportion to the population. Shall we make no changes for these in the future?

As for the imputations cast upon those who are seeking reform, there is no one whose reputation needs defence, and charges cannot be disposed of so easily. There is the best of evidence that the organization of insane asylums needs improvement, and that the medical treatment of the insane is not what it should be.

The question of the care of our insane is a very great one; it still needs discussion; there are problems in it yet to be solved, and changes in the present system that will have to be secured. Dr. Ordronaux made a mistake in substituting a historical review for a critical and practical discussion of the subject. The agitation concerning it has gone too far to be stopped by assuming indifference or attempting to ignore the points at issue. We admit him to be right in one respect—that he urges in an impassive way the stirring up of public sentiment, not the attacking of officials. This is the ground we have taken ourselves; but public sentiment will not be aroused by folding the hands and disclaiming all need of reform.

The best endorsement of the propriety of the recent meeting at Cooper Union, and of the necessity of further agitation, is this address by the State Commissioner in Lunacy.

THE SPREAD OF SMALL-POX.

It appears from our foreign and home exchanges that small-pox is more than usually prevalent in the larger cities of Europe and this country. Some of the statistics about the matter we have already given, but the prominence which the disease has gained requires further mention concerning it.

The history of the present extensive spread of small-pox goes back quite a number of years. About the beginning of the Franco-German war, according to the *Lancet*, small-pox broke out among the practically unvaccinated population of Brittany. While at its height there, conscription carried infected persons to the camps and introduced the disease into the army. From there it spread to the cities of France, notably Paris; and prisoners of war took the infection also into Germany. At the end of the war the general diffusion of men and material kept on the spread of the disease. During the years 1871–3, there were a great many cases in London, there being at that time large numbers of unvaccinated children in the metropolis. The disease has been gradually diffused over the whole globe; and, very possibly from the starting-point we have mentioned. Its prevalence in England has led recently to a great deal of agitation on the subject of vaccination, there being in that country a very pronounced feeling against it. This is, we are glad to say, outside of the medical profession. Statistics are brought forward to show that since the adoption of the vaccination act of 1867, the prevalence of small-pox has increased.

While some lay the blame for this increased prevalence to the radical inefficiency of vaccination, others assert that the lymph used has deteriorated in part, and in part has been genuine variolous and not vaccine lymph. The facts that we have given, however, and a general inattention to vaccination and revaccination, are sufficient to account for the condition of affairs. It is now sought to secure the compulsory vaccination of the populace with animal vaccine lymph; and although there is much opposition to this measure, it will probably be eventually carried.

During the past fall the disease seems to have received a new impetus; two hundred and fourteen deaths are reported from it in Paris since August, nineteen having occurred in the week ending December 13th; and more or less of the disease is present in Montreal, St. John, Havana, Belgium, Austria, Spain, Russia, and Morocco. Cases have occurred in the United States since November 15th, in New York, Philadelphia, Washington, and San Antonio.

Some of these latter cases it has been very difficult to trace. In most instances, however, where such tracing has been done, rags were found to be the carriers of the contagion. It is a peculiarity of small-pox sometimes to develop and spread in this insidious and apparently sporadic way. Therefore, although there are extremely few cases in the country now, it will be well for physicians and boards of health to attend promptly to the matter of vaccination. The proper authorities, also, should watch carefully the importation and inter-State shipment of rags.

A MALPRACTICE SUIT TRIUMPHANTLY DEFENDED.

The history of a malpractice suit brought against Dr. C. A. Robertson, of Albany, and recently dis-

ruined, has an instructive side, and we take the opportunity of referring to it. It appears that three years ago a certain grocer named Ives applied for treatment at the Charitable Eye and Ear Relief in Troy. He was found to be suffering with an old iritis, the pupil was entirely occluded, and the other so nearly so, that with the general dimness of the anterior media sight was almost entirely gone. He was told that an iridectomy might prevent the recurrence of the disease, diminish pain and give him a slight and only chance of securing better vision. Aware of the risks, he consented to the operation. A double iridectomy was performed with no difficulty or accident. Unfortunately a suppurative iritis followed, and the operation became, in consequence, a failure. The man, when the result expressed himself satisfied that all that could have been done for him had been performed. Last June, however, he brought a suit against Dr. Robertson for malpractice. It was attempted to have the trial in St. Lawrence County, among the friends of the plaintiff, and where the defendant, owing to sickness, would be unable to offer his medical testimony. This effort, however, was defeated; the case was assigned to the Albany Circuit Court. In that court the complaint was dismissed early in December last.

There were features in this case which unfortunately are too often found in suits for malpractice. The plaintiff was a charity case, a man to whom medical and surgical care had been given without fee. The plaintiff's lawyer was a young man, with a reputation for liking notoriety. We do not know that he was of that class which undertakes such suits on prospective fees, but it is a fact that such arrangements are often made. In the present case the circumstances were particularly unfortunate for the defendant, as he was sick in bed during the whole time. The opposing counsel was active in the prosecution of his work, and the future looked decidedly dark; but Dr. Robertson, believing it due to the profession as well as himself, to fight the matter out, did so, and with complete success. The courage with which, under disadvantageous circumstances, the cause of justice was adhered to and brought out triumphant, deserve great commendation; and it would be well if the practice of sticking to one's rights, instead of compromising to save trouble, were oftener adhered to.

PERCENTAGE ON PRESCRIPTIONS.

Our good friend, the editor of the *Michigan News*, appears to be backing water a little on the subject of percentage on prescriptions, but he has evidently not yet struck bottom. While condemning the practice of overtaxing the patient who is willing to pay for everything, he is in favor of making the would-be "dead-head" pay well for his medicine, so that there may be something of a margin for the doctor. But, in reality, two wrongs never can make a right. The physician, in such a case, is as bad as the patient, as both are acting under false pretences. The patient gets advice without intending to pay for it; the doctor obtains his percentage in an underhanded manner. If a patient cannot be made to pay for advice in any other way, he should not receive it. Then, again, the doctor should not tempt the patient to drug to become an inebriate.

GRATUITOUS SERVICES TO CLERGYMEN.

On a recent remarks upon the gratuitous services to clergymen are attracting considerable attention in our exchanges. The opinion appears to be quite unanimous in favor of charging fees to all clergymen able to pay them. Among others of our contemporaries, the *Buffalo Medical and Surgical Journal* is quite decided in its views.

"We fail to find any valid reason for these gratuitous services. The majority of the profession are members of, or attributes on some of the religious bodies, and share in the expense of their maintenance, paying their quota of the minister's salary. On what principle—certainly not of equity and justice—are they expected to dispense to the clergy, without compensation, the skill and knowledge acquired at a large expenditure of money, and of patient labor and effort, while the mechanic and laboring man enjoy no such exemption?

"Besides, it is a fact that services, thus freely and generously rendered, are but poorly appreciated by our clerical patrons. We do not approve of pauperization, whether among the genteel and educated, or among the ignorant and vulgar. No class of men, professional or otherwise, are beyond the reach of such demoralizing influences. We approve of a just compensation for the clergy, as well as for lawyers, teachers, and mechanics, and we especially endorse the apostolic injunction that the clergy should "owe no man anything," not even their doctor; "but to love one another," in which category we trust the profession of medicine, always abundant in good works in ameliorating the sufferings to which flesh is heir, may be included."

ADVERTISING CHARITIES.

The St. John's Guild is doubtless a very useful institution, and its work in supporting a floating hospital and a seaside home for children has been an excellent one. It is to be regretted, however, that it has to take such elaborate, and, we might say, fulsome methods of advertising, in order to support itself. The "Martha Washington Reception," a charitable entertainment given for its benefit, has full-column advertisements in the daily press. In these the good work of the Guild is endorsed by letters and by the signatures of about fifty of our leading physicians and surgeons. The case is further strengthened

by the endorsement of a dozen homœopathic physicians, whose names are placed, in a neat paragraph, below those of the regular fraternity.

It appears to us that a deserving charity should not require so expensive an appeal, or so elaborate an endorsement. "Good wine needs no bush." And when a cause has to indulge in an extent of advertisement rarely exceeded by that of a circus, it awakens uneasy feelings in regard to it. We say this not in any spirit of antagonism to the cause, but in justice to it and to those who would be more inclined to help if it were less ostentatious.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Dec. 18, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 8 P.M., and the minutes of the previous stated meeting were read by the Secretary, DR. H. T. HANKS.

DR. MCFARLAND, U. S. A., was introduced to the Academy, and invited to a seat upon the platform. Under the head of "Reports of Sections," the secretary of the Section in Practice of Medicine, DR. KATZENBACH, reported that at the last meeting Dr. A. H. Smith was elected chairman, and Dr. J. N. Merrill, secretary, for the ensuing year.

THE FORCEPS [WITH A DEMONSTRATION OF THE TARNIER FORCEPS], VERSION, AND THE EXPECTANT PLAN IN CONTRACTED PELVES.

DR. WM. T. LUSK read a comprehensive paper upon the above subject, in which he touched upon a large number of questions which had a bearing upon the management of labor in three varieties of contracted pelvis: 1. The flattened non-rachitic pelvis; 2. The flattened rachitic pelvis; and, 3. The pelvis equally contracted in all its principal diameters. The intent of operative interference was to save the life of the child; for, with a dead child, version or forceps possessed no special advantage over craniotomy. There was no well authenticated case in which a living child had been delivered at full term through a pelvis the conjugate diameter of which is less than 2¾ inches. As a rule, no interference was called for with a conjugate diameter of 3½ inches and upward. The plan of his paper was as follows: 1. Every pelvis should be carefully measured, and the discussion should be limited to the management proper for cases of labor with pelves having a conjugate diameter between 2¾ and 3½ inches. 2. Having a pelvis of that size, a cervix fully dilated, a favorable presentation, and no complications, all statistics showed that, as a rule, it was best to wait, relying upon the expectant plan. Version, in contracted pelvis, was indicated only when the child was nearly in the normal condition, the antero-posterior diameter between 2¾ and 3½ inches, the contraction limited to the brim, and sufficient amplitude in the transverse diameter. The method of performing it was the same substantially as in a pelvis having the normal size. Reference was then made to the methods recommended by Dr. I. E. Taylor, of New York, and Dr. Wm. Goodell, of Philadelphia. Extreme traction force in version might result in fracture of the clavicle, or humerus, laceration of the sterno-cleido-mastoid muscle, rupture through the substance of the vertebral column, extravasations of blood into the tissues and cavities, springing the condyles of the occiput, disturbance of cranial sutures, fractures of the skull with depression of bone, rupture of intra-cranial sinuses with depression of bone. The records of competent operators were given, and showed for version a saving of 31 living infants in 43 cases, without the loss of a single mother; for forceps, high operation, head above the brim, 60 per cent. of children, and 40 per cent. of mothers perished; while by the expectant plan, out of 407 spontaneous deliveries there was a loss of only 53 children and 12 mothers by puerperal disease.

The field for version and other plans of treatment narrows itself down to cases in which the membranes are ruptured, the head above the brim, and the conditions such as render it impossible for the uterus to overcome the mechanical obstacles to delivery, provided the labor-pains are sufficiently energetic. After referring to different methods, he described the Tarnier forceps, with which he claimed to be able to bring the head of the child from the brim to the floor of the pelvis in much less time and with less expenditure of force than it can be accomplished by any other method. [For a description of the forceps of Tarnier and their mode of action, as presented to the Academy by Dr. Barker, see MEDICAL RECORD, vol. xii., p. 684.] Dr. Lusk had modified the instrument by having the blades modelled somewhat after those of the Wallace forceps, and by using a new lock for the traction handles. He had used the instrument in fifteen cases; it could be applied in any case in which Hodge's instrument could be used, and he was satisfied with the results. He was not, at the time Dr. Barker introduced the instrument to the Academy, prepared to accept it, but now he was sure that, by its aid, where the head was above the brim, he could deliver within a few minutes, where formerly, with the ordinary curved forceps, half an hour was required.

[The action of the forceps was then demonstrated upon the manikin both in a normal and a contracted pelvis.]

The paper being before the Academy,

DR. ISAAC E. TAYLOR remarked that while the field opened by Dr. Lusk's paper was a large one, and embraced many important and interesting questions, he should restrict what he had to say to a few points. He had had no practical acquaintance with Tarnier's instrument, but from its appearance and from what he had seen of it during the demonstration, he regarded it as essentially the forceps devised by Davis, of Dublin; for it had the same convex, concave, and anterior curves; also the same curve with regard to the handles, the fenestræ, and was such as was used more particularly by Meigs, of Philadelphia. He saw no reason why it might not be used as well as any form of forceps, yet he believed that, in the superior strait, they were not so good as the straight forceps. The main point, however, regarding any instrumental operation in midwifery was to know exactly what it was desirable to accomplish—exactly the work before the operator to be performed. The space to be operated in was very narrow. Dr. Lusk had placed it between 2¾ and 3½ inches conjugate diameter—only nine lines—in which the decision was to be made between version, the forceps, and the expectant plan. There was a vast dif-

ference of opinion among prominent obstetricians regarding the best method of procedure under such circumstances. In the demonstration which Dr Lusk had made upon the dummy that pelvis, the forceps were applied to the head of the child over the occiput and the face. There was a difference of opinion also as to whether the application of the instrument in that manner was the best, some favoring the method, and others, as Hodge, Wilson, and others, applying the blades directly to the sides of the head. Dr Churchill recommended to apply the instrument with one blade against the pubes and the other against the sacrum, but he Dr. T. did not believe any man ever had done the operation in that manner. Dr Taylor rejected or [illegible] the application of the forceps over the occiput and the face, and there was no advantage to be gained by so doing in a simple flat pelvis. More ample space could be obtained by bringing the coronal suture in contact with the promontory of the sacrum, and applying the forceps in the oblique diameter of the pelvis.

The head could be fixed in that position by the straight forceps; moderate compression was made, it was true, but it was not pressure antero-posteriorly upon the head—to which he was opposed under any circumstances—and was upon the parieto-frontal portion. The important point was to know how to handle the base of the skull, with the superior portion we had nothing to do; and unless the base was managed properly the forceps would not succeed.

If this particular portion came in contact with the sacrum and the straight forceps were applied, with the operator upon the floor making traction—we had an instrument that operated in the same manner as Tarnier's forceps, downward and backward, and with a to-and-fro movement according to the option of the operator. But suppose it did not yield? Version could then be employed. As to whether version should be attempted must be decided by the size of the child, size of fontanelles, etc.

With regard to generally contracted pelvis, he believed they were much more common than was usually supposed, and doubtless many cases of tedious labor depended upon that cause. The general contraction was perhaps no more than one-half or three-quarters of an inch.

In those contracted pelves he did not think that forceps should take the place of version in any case, or that version was more successful than forceps, simply because success had been obtained in special cases.

The chief point for discussion, as he regarded it, was simply whether with a head-presentation and dilated os in a contracted pelvis, it was proper to make the attempt to deliver by means of forceps. He did not object to the attempt, but after making two or three reasonable efforts, and failing, the instrument should be removed and version should be resorted to, aided by external pressure, which was of the greatest importance in this connection. He dissented *in toto* from applying the forceps over the occiput and the face.

Dr. E. H. M. Sell thought it important to regulate the method of management by the conditions in each case, taking into consideration the condition of the mother and that of the child.

Dr. T. Gaillard Thomas remarked that the only objection to the most excellent paper presented to the Academy by Dr. Lusk, was that it contained so little to be criticised. With regard to statistics, however, upon which the author had relied largely, he felt compelled to say that statistical evidence had but little weight with him. He was very often led to think of the remark made by Mr Sydney Smith in that connection—namely, "That there is only one thing more unreliable than figures, and that is facts." Every one who had ever been connected with a large hospital must know how loosely statistics were manufactured, knew very well how little reliance could be placed upon them.

He hoped he did not believe to that class of men who were biased in their opinions, and yet he must say that his convictions had grown stronger upon the question under discussion with his increased experience.

Let it be supposed we started with a case of labor with deformed pelvis—not a case in which the antero-posterior diameter was below two and three-quarters inches, when either the Cæsarian section or craniotomy was almost necessarily required—but a case in which delivery was to be effected either by natural forces or by the aid of science and art, without mutilation of the child's body.

In such a case expectancy, at the beginning, should invariably be practised; even though it was known that for the safety of both mother and child labor must be terminated by the use of the forceps. The forces of nature should be allowed to mould the head, and change its shape, and then the case might be brought to a most favorable termination; whereas a most terrible result might be realized if the case was approached too early with the forceps.

So long as the fœtal heart beat regularly, the maternal soft parts were moist and cool, and the pulse in the interval between uterine contractions not accelerated, we could with safety trust to expectancy. But expectancy which, up to that point, was a virtue, might soon after become a crime; and that was when it allowed the pulse to become rapid, the temperature to rise, the nutrition of the pelvic tissues to become impaired, the woman to be exposed to the loss of her life, or, if saved, to all the evils attendant upon vesico-vaginal fistula, sloughing of pelvic tissues, subsequent inflammatory action, and septic infection. But, coming to the case when it was in good condition, before expectancy had gone too far, the question arose, "Shall the woman be delivered by the forceps or by version?" There was no other operation at our disposal. Ergot, expression, or similar measures were of no avail; and the only means at our disposal to complete the labor *as required*, were those just mentioned. His convictions were these: If the uterus did not clasp the child's body so firmly as to render turning in its cavity exceedingly difficult, or the waters had not been so long evacuated that the result of turning, probably, would be a dangerous one from forcing the hand up to the fundus, with the head above the superior strait or entered into it to some degree, version, as a rule—to it there were exceptions—was the operation to be selected. Let it be supposed, however, that in attempting to introduce the hand into the cavity of the uterus it was found to be exceedingly difficult; suppose after carrying it in, the operator recognized that it was difficult to turn the child, the parts had become dry, and it was evident that the operation would prove to be one requiring a great deal of effort in order to complete it—then he should decide to discontinue the efforts at version and to try the forceps.

If the child had fairly entered the cavity of the pelvis so as to be fixed—was no longer a floating body above the superior strait; if what was difficult before had become unusually difficult—then the forceps was

the means which should be selected for completing the labor.

But, having elected which of the two operations should be adopted, version or the forceps, the operator was apt, in the hurry and excitement of the hour, to imagine that such decision was final. It should not be so regarded. Let it be supposed that the decision was to resort to the forceps, and they were applied, and from ten to twenty minutes, perhaps thirty minutes, were expended by the operator in exerting all his physical power for the delivery of the head; if the delivery was completed in that manner, the result was usually an evil one. Now, having decided to use the forceps, and having tried them fairly, having tested the question and found that so much difficulty arose, so great an expenditure of physical force was required, the decision should be reversed, the forceps withdrawn, and the operation of version substituted.

As an illustration, he referred to a case which the President and himself saw together. There was some contraction of the pelvis, and the woman had puerperal convulsions. One was in favor of using the forceps, and the other of resorting to version. The forceps were applied to the head at the superior strait, and all efforts at completing delivery failed. The forceps were then removed, the head was pushed up, the child was turned and delivered alive, and both mother and child did perfectly well. In that case it was not decided to adopt one method to the exclusion of the other, but the method which was first selected being tested and failing, the other was resorted to, and with a favorable result. In any case of deformity of the pelvis that should be the rule.

He thought the forceps of Tarnier was a great improvement upon older instruments, and believed that all obstetric instruments were susceptible of improvement, as were other matters in medicine; yet he did not believe they would ever get into general use. But, whether the forceps of Tarnier ever came into general use or not, he believed that in cases in which the head was at the superior strait, or just within the pelvis, they would prove to be an important and invaluable means for overcoming many of the difficulties in that class of cases.

Dr. T. C. Finnell believed that with a pair of ordinary obstetric forceps, such as Hodge's or Elliott's or Barnes's, all could be done that was required. Forceps were used too often. He favored conservative midwifery, and said, "Wait, wait, wait; Nature would accomplish very much if she was allowed to have fair play."

Dr. Paul F. Mundé said he should not like to wait, and wait, and wait; yet in every case interference should be of the most judicious character. He believed it to be generally accepted that the high-forceps operation was difficult, and liable to be attended by injury to the soft parts of the mother. Since the President presented Tarnier's forceps to the Academy, although at the time not favorably impressed with them, he had regretted that he did not have them at hand for trial, on account of the difficulty usually attending the high operation with the instruments ordinarily employed.

He raised the question whether the instruments devised by Cleeman, of Philadelphia, Vedder, of New York, Aveling and others, would not supply the place of Tarnier's forceps, and they were less complicated.

The President congratulated the Academy that Tarnier's forceps had been presented so much more effectually, and apparently so much more convincingly than they were presented two years ago. He then directed attention to a few points which he thought had not been emphasized either by the author of the paper or by the speakers who had followed him, as their importance deserved.

First, with regard to the vital condition of the woman as an element which should serve to assist in making a decision as to which of the two operations should be adopted, forceps or version. The point had been incidentally alluded to by the author of the paper, and also by Dr. Thomas, but was not made prominent. It seemed to him that there were certain principles which had a great guiding influence in deciding in any case, whether the forceps or version should be resorted to, and illustrated his position by giving briefly the history of two striking cases. Some years ago he was called to see a lady who had been in labor eight hours previous to rupture of the membranes, and fourteen hours afterward she was taken with convulsions, of which she had six in rapid succession, and was in a comatose condition when he first saw her. There was evident contraction of the antero-posterior diameter of the superior strait. The life of the child was of the greatest importance, on account of the succession to a large property. The patient was partially anæsthetized by the uræmic condition; furthermore, she had been under the continuous use of chloroform for six hours; therefore, the danger from shock would be only slight, and he attempted version, the head being at the superior strait, and only partially engaged. The operation was performed and delivery completed, the child was still-born, but was resuscitated at the end of two hours, and is still alive.

The other case was one in which the woman was in her second labor. In the first labor it was discovered that there was some contraction of the antero-posterior diameter, and the child was delivered after craniotomy. Before the second labor, she had made her husband and the physician promise that the child should not be cut to pieces, as she preferred, rather than to have the former operation performed, that she should be permitted to die. It was in 1862, and both physicians whom I met in consultation were strongly opposed to the use of chloroform. She had been in labor thirty-six hours, her pulse was quick and feeble, the vagina was hot, and her general condition was very bad. Dr. Barker thought the woman could not endure the shock of version, and proposed, and succeeded in persuading the gentlemen in attendance to allow him to administer chloroform, and attempt to deliver the woman by means of forceps.

In her general condition he regarded the forceps operation much safer for the mother than version. He applied the forceps, succeeded in delivering the child, which was still-born, and could not be resuscitated, but it was not mutilated.

He then recommended that, if pregnancy again occurred, labor should be brought on at the eighth month, which was done, and she was delivered by version of a living child, and both mother and child were still living.

The point which he wished to illustrate was that the vital condition of the woman should have great influence in deciding the question as to which one of the two operations, forceps or version, should be adopted.

RULES.

There were certain rules relating to these cases which he regarded as well established.

1. In that form of contraction of the superior strait called the oblique oval of Naegele's, the forceps should not be used, but we should always resort to version.

2. In that class of cases in which the contraction is at the inferior strait, with a straight sacrum instead of the normal curvature, narrowness of the subpubic arch, etc., we should never resort to forceps, but always select version, if we have the opportunity to make the election by a sufficiently early examination.

3. In face-presentation we should never resort to forceps when the head is above the superior strait, and not engaged.

He would not go so far as the author of the paper, and say that the forceps should never be applied when the head was not engaged at the superior strait, for he knew he had safely delivered several women, where it was necessary to save the life of the mother, when the head was not engaged at all, or was lying loose at the superior strait. But if the face presented under the same circumstances, we should not resort to the forceps.

He said, in at least three cases where there was a face-presentation in a contracted superior strait, and the face had become engaged in the strait, been successful in delivering by the forceps, by first flexing the head and converting it into a vertex presentation and partially rotating it. Then taking off the blades, he had reapplied them as if it was a vertex. In these cases it was fortunate that the original presentation was the face, because the vertex would not have engaged in these contracted pelves if it had presented.

Dr. Lusk, in closing the discussion, remarked that he had a little feeling of confidence in statistics, and he thought the result of the discussion showed that those which he had presented were not far out of the way.

He agreed perfectly with the President that it was possible to deliver with the forceps when the head was above the brim, and he only objected to the operation upon the ground that it was extra hazardous. Version, under such circumstances, was so much safer than the forceps, that he hoped it would be generally adopted.

With regard to Tarnier's forceps, he simply wishes that all who had the opportunity would try them, and that was all that Tarnier himself asked, for he thought they would prove of extreme service in difficult cases.

The President then announced the fusion of the Medical Journal Association with the Academy, and on motion a committee was appointed to see that the transfer was properly secured.

The Academy then adjourned.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, Dec. 2, 1879.

Dr. J. C. Shaw, President, in the Chair.

The Society was called to order, and the minutes of the last stated meeting were read by the Secretary, Dr. Wm. J. Morton.

The Secretary also reported that he had, according to the instructions given him by the Society, at the last stated meeting, written three letters: one to the Consulting Board of Physicians and Surgeons, one to the Secretary of the Board, and one to the Board of Commissioners of Charities and Correction, and that to neither of his communications had he received any answer. The report gave rise to remarks, and Dr. Seitzka thought the inquiry had gone by default, because no attention had been paid to the correspondence from the Secretary, and advocated the adoption of the original resolution expressive of incompetence on the part of the Consulting Board to discharge the duties of such a board over insane asylums.

Dr. E. C. Seguin was opposed to the immediate passage of the resolution, and suggested that more time be given to the Board of Commissioners of Charities and Correction to answer the Society's proper request, made through the Secretary. On motion by Dr. Hammond, the further consideration of the resolution was postponed for one month.

New Members.

The Council reported for election as active members, Drs. A. Brayton Hall and L. Bradley; and as honorary members, M. Benvenisti, of Padova, Italy, and Prof. Diodati Borelli. The report was adopted, and the proposed candidates were elected.

Dr. Hammond presented a volume donated by M. Benvenisti, and the Secretary was instructed to return the thanks of the Society to the donor.

The Brain of a Porpoise.

Dr. E. C. Seitzka exhibited the brain of a porpoise with a view to the correction of certain errors that had been committed relating to the region in the brain which is supposed to preside over function of speech. It had been maintained for a long time, by some medical writers, that the island of Reil was larger in man than in any other animal, and, also, that it contained a greater number of convolutions, and for that reason the function of speech should be located there. But the reasoning was opposed by the facts. In the hippopotamus the development of the island of Reil was so great that, according to the theory, the animal should be entitled with complex symbols, if not gifted with the power of speaking. The island in the hippopotamus was homologous to that in the horse, and, the human and equine corresponding, it must be homologous to that in the human brain. Now, in the porpoise, the island of Reil had four times as many convolutions, and was twice as large as that in man, and was completely covered with by the operculum and temporal lobe. In the latter respect it corresponded to the anatomy found in man and the anthropoid apes.

Dr. Birdsall asked regarding the thickness of the gray matter, depth of the fissures, etc., and referred to the development of the island of Reil in the horse, which Meynert had made the basis of the opinion that the horse had good understanding, but could not evolve symbols.

Dr. Seitzka thought the horse a stupid animal compared with the hippopotamus, whose island of Reil was much larger than that of man, and yet the porpoise had a very much larger island than man, and a low order of intelligence.

Dr. L. C. Gray thought the association of function and localization was not so invariable as represented, and, to sustain the thought, referred to Claude Bernard's case, in which the patient had acute sense of smell without any olfactory nerve. He thought there were many exceptions to localization of function.

Dr. E. C. Seguin thought the fault did not lie in nature's laws, but in our deficient understanding of them.

Dr. Gray urged that what had been regarded as laws were uncertain.

Dr. Hammond took exception to the assertion by Claude Bernard.

Dr. Spitzka thought that, in the discussion, the bifurcation of the trigeminus had been forgotten, but Dr. Gray said it had not been overlooked, and Dr. Spitzka remarked that the essential oils were not recognized by the trigeminus.

THE HYSTERICAL ELEMENT IN ORTHOPÆDIC SURGERY.

Dr. Newton M. Shaffer read a paper on the above subject, and gave a detailed history of a large number of cases in which the hysterical element caused confusion in the diagnosis of affections of the joints. He expressed the opinion that many cases had been regarded by the "ordinary practitioner" as cases of Pott's disease, hip-joint disease, and knee-joint disease, that finally proved to be hysterical in character.

Discussion was postponed until the next stated meeting.

The by-laws were amended, so that the time for holding stated meetings is the *first Tuesday* in each month, instead of the first Monday, and the Society then adjourned.

ABSTRACTS OF MEETINGS OF FOREIGN SOCIETIES.

FRENCH.

ACADEMY OF SCIENCES.

December 24, 1879.. M. Danbrée, Presiding.

Mr. Brown-Séquard read a paper describing certain *experimental researches upon a new property of the nervous system.* These experiments were for the purpose of showing that there existed in certain parts of the nervous system a special property which in contrast to that producing inhibitory phenomena, manifested itself by causing a sudden augmentation of energy in the properties of other parts of the nervous system. The conclusion expressed by the professor was that there was a special property of the nervous system, by which certain centres under the influence of an irritation, caused, either suddenly or after a short interval, a notable increase in the motor or sensory activity of certain other parts of the nervous system.

M. H. Lenoir presented a paper on the alterations of the epidermis in affections of the skin or mucous membranes which tend to the formation of vesicles, pustules, and the production of false membranes. The microscopic changes which occur in these affections were described in minute detail.

ACADEMY OF MEDICINE.

December 9, 1879. M. Bouley, Presiding.

Dr. De Pietra Santa read a paper on *animal vaccination.* The great importance of animal vaccination and the degree to which the practice was already adopted in Russia, Spain, Austria, Germany, Switzerland, and the United States, were shown.

It was urged that arrangements should be made so that animal vaccine might be supplied to the citizens of Paris.

M. Peter communicated to the Society the first part of his researches upon local abnormal temperatures in diseases of the abdominal organs. He stated that in ascites the temperature of the abdominal wall was not raised, and might even be less than normal. In chronic inflammations of the peritoneum, however, the local temperature was raised a degree (centigrade) or more.

M. Hillairet said that he had made some researches upon the local temperature in skin diseases, but had not been able to arrive at any definite results.

M. Noel Gueneau de Mussey, referring to the statement of M. Peters, that he had used an ordinary thermometer in his experiments, described the surface thermometer devised by Dr. E. Seguin, of New York.

Dr. Onimus read a paper upon electro-muscular contractility and the action of curare. Contrary to the opinion of Cl. Bernard, Dr. Onimus believed that curare does not act on all parts of the motor nerves, but only the trunks, the nerve-centres and terminal filaments being unaffected.

SOCIETY OF SURGERY.

November 26, 1879. M. Tarnier, Presiding.

M. Gillette read a paper in which he showed the priority of M. Boucheron in the new operation for section of the ciliary nerves.

M. Boissarie reported the case of a patient who had suffered from a sanguineous tumor of the antrum of Highmore. It was at first taken for a nasal polypus. It was punctured, and the hemorrhage that followed could only be arrested by compression of the carotid. Tampons were applied also. At the end of a few days it began to suppurate, and the patient was announced as recovering.

M. Le Fort read a long paper upon Movement and Rest in Diseased Joints.

M. Le Dentu presented a patient on whom he had practised resection of the knee, removing six centimetres of the femur, and two of the tibia. The success was complete, the patient walking very well.

BRITISH.

ROYAL MEDICAL AND SURGICAL SOCIETY OF LONDON.

Stated Meeting, December 9, 1879. John Eric Erichsen, President, in the Chair.

Mr. Jonathan Hutchinson showed the body of a child, aged three months, in which *gangrene of the skin and body had followed vaccination.*

Three days after the vaccinia, vesicles had formed, and gangrene began to appear about them. This had spread slowly, and in three weeks the child was dead.

Mr. Hutchinson did not believe that there was any syphilis in the case. He had before seen such a condition follow in varicella, but never in vaccinia.

Mr. Henry Morris related two cases of *carcinoma of the breast preceded by so-called eczema of the nipples and areola.* Hitherto, no complete report of similar cases had been published, although Sir James Paget had, in 1874, pointed out the connection between the two diseases.

The reading of this paper was followed by a similar one on *Eczema of the Nipple and Cancer of the Breast,* by George Thier.

The pathological changes and relations of these two diseases were discussed.

The author believed that there was originally a slowly advancing cancerous change near the mouth of the lactiferous ducts, which, at a very early stage, led to irritative effects on the superficial tissues of

the nipple and surrounding skin and lymphatics penetrated into the substance of the mammary gland.

After reading the paper, Dr. Ebert demonstrated on cases of chloral drawings the differences between melanosis or duct cancer, and carcinoma or parenchymatous cancer. He also showed drawings of a peculiar case described by Dr. Foster in the New York *Journal of Dermatology* as one of melanosis. He regarded it as a new case of the affection of the skin which had been found associated with cancer of the breast.

The discussion on the two papers was postponed.

Correspondence.

CONCERNING MEDICAL FEES

To the Editor of The Medical Record

Sir:—If any practitioner with any business habit will sit down, and try to give to himself the reason for so many bad debts, he will, I have no doubt, be surprised to find how much such a state of things is due to downright carelessness on his part. The doctor is in the habit of dispensing his professional favors with a lordly hand, and, because his services are intrinsically above a mere monetary consideration, rather than demand his fee, and be particular in getting it, he will let it go. I have done so very often myself, and so have others of my professional friends. But it is all wrong. Many of our patients will find it to their interest to cultivate such a spirit in us by speaking of the great charity of the profession, the noble traits of its members, how valuable are the services rendered, what a Samaritan spirit actuates the doctor in helping his fellow-men, etc. In fact, the poor doctor is led, by such assertions, to believe that his principal vocation is to practise his profession on the poor, and thus get his reward hereafter. Every one wishes to have the reputation of doing good, but the profession of medicine has obtained such a reputation against very heavy odds. Our clergymen always speak of the noble, self-sacrificing spirit of the medical profession in a way that would make each practitioner envy the professional reputation of St. Luke, and emulate his example. But the clergymen themselves get our services for nothing, and their eulogia are very cheap, especially in connection with the fact that all their quack medicines are furnished them free for like services in attesting remarkable cures.

I have long since come to a business conclusion regarding this matter, and have insisted upon collecting every dollar I could from those who could and should pay. I do not except my minister from this class. I knew he was making twice what I did when I charged him nothing, and now, that the shoe is on the other foot, he is more content to pay for my services than he was to receive the same services before for nothing. I have every reason to believe that making him pay for my services has created this change.

I am of the opinion that we should not only do this way to clergymen, but every other class and condition of men concerning which and whom we give the benefit of the doubt in favor of free medical charity. You very properly say if we are not particular ourselves in demanding pay and in afterward collecting it, our patients become likewise indifferent, and think that our services are of small account.

I believe, also, that physicians are very apt to look over small accounts because in the first place, they are small, and secondly because the trouble of collecting them is more considerable than the accounts themselves. Here is a certain take. The man doing the largest trade will not hesitate to collect the smallest account. I am of the opinion that it would astonish the average practitioner how much extra comfort he could secure to himself by the collection of the smallest bills which he is so often tempted to neglect. With some it might amount to an extra horse, a new office desk, an extra easy-chair, a softer cushion, a warmer lap-robe, a new addition to his now too scanty library. The collection of the small bills which I was determined to get, paid for my Record for last year, and purchased a fine pocket case of instruments.

I always take a fee when it is offered, but I am daily finding out that I do not see to it that the fees are offered often enough. In France and England no patient leaves the office of the consultant and no medical attendant leaves the house unless the fee is paid. This is a custom of the countries and a very good one. I have long since ceased to think that the asking for money is unprofessional. "Short accounts make long friends," is as true regarding medical fees as any other.

I am well aware that it is fashionable to send accounts at the end of the year or half year only. This is well enough for the opulent practitioner, but rank to the younger and more hopeful members, of which your humble servant is one.

C. O.

Norwich, Conn.

To the Editor of The Medical Record

Sir:—I was pleased to notice that your editorial on fees took the ground that we should have a definite standard of prices, and that, having received the same, it is well to be satisfied. I am, I presume, not alone when I say that the really payment of a bill tempts the doctor into the belief that he should have charged more. I am sure that this is very wrong, and that the absolute standard of prices would correct it. In other words, we cannot afford to have two prices for our mental wares. I have had several patients of mine express surprise at the small amount of my bill, when in reality I expected they would find fault with me for overcharging. Of course I considered that I missed just so much by not charging more. But I further noticed that their surprise and gratitude never extended to the point of increasing the amount of the bill and writing me a larger check. Patients generally say they are surprised, but practically it amounts to nothing, at least they are never serious enough about the matter to come up to their pretended estimate of the value of our services. Hence I agree with you that some absolute standard of prices should be fixed, get all we can, but be satisfied when we do get it.

P. J. D.

Indianapolis, Ind.

To the Editor of The Medical Record.

Sir:—Will you allow me to say a word in regard to your editorial upon the subject of "Medical Fees"? I have recently had my attention called to a case that illustrates painfully the mistakes made by physicians in this respect, and I think that the stand you take in the matter is an excellent one. Physicians should pay more attention to the drawing up of their bills, and the settlement of their accounts. It is often

hrough this negligence that they become exorbitant n the one hand, or absurdly charitable on the other.

The importance of not changing the amount of a ill after it is once presented, should, I think, be ost emphatically insisted on. I was very glad to see hat you brought that point out with so much force. Every one has doubtless heard of cases illustrating he evils that result from the lumping and the discount policy.

I was told a short time ago of a physician who was alled in to treat a case of, I believe, chronic arthritis f the knee. The patient was a lady, and both she nd her husband were personal friends of the doctor. The case had been previously treated by another physician without success. The new-comer gave rather injustifiable hopes of certain cure in a given time; nd, I believe, even promised not to charge very much if he did not perform a cure. The case went n for weeks and even months; the patient, under severe counter-irritation, grew worse rather than better. At last the husband told the doctor that it did not seem worth while for further treatment to be continued; that his means were limited, and he really could not afford it. Thereupon the physician put in an itemized bill for a large amount, the items even including visits which had been announced as merely social ones. The patient protested, but the doctor insisted, and finally brought suit for the whole amount—about $250. After some consultation with the lawyers, however, he agreed to compromise, and took $100 in full for his services.

The whole story is very far from creditable to the profession, and it shows the necessity for doctors and medical societies to attend more closely to the ethical as well as business side of the question of medical fees. I hope that your editorial will stir up many on this subject.

M. S.

Brooklyn, L. I., Jan. 11.

HIGH TEMPERATURES IN NERVOUS DISEASES.

To the Editor of The Medical Record.

Sir:—In the report of a lecture by Professor W. H. Thomson, published in your issue of Jan. 3d, it is stated that in some nervous disorders the body temperature "has been known to reach 123° F., and remain there for several weeks." Will Dr. Thomson kindly give reference to the authority on which this statement is made?

Yours, etc.,

A. L. C.

TRACHEOTOMY WITHOUT THE TUBE.

To the Editor of The Medical Record.

Sir:—In a recent number of the Medical Record, I noticed that one of its contributors, in speaking of the operation of tracheotomy, asserted that a tracheal tube was no longer necessary, and that before many years it would be looked upon as a relict of the past. As this is a very important improvement, would the Record please invite some one familiar with this new mode of operating to give a full description of it? So far, the greatest difficulties inherent to the operation are attached to the use of the tube. Its introduction in the trachea, and to ascertain when it can be dispensed with, the irritation produced in young and irritable subjects, are all great barriers to its success, and prevents many a surgeon's having recourse to it. I am convinced that in three of my cases death was caused by the irritation of the tube, and lately I had a case which resulted in an erysipelatous inflammation of the wound, which came near being fatal.

Respectfully yours,

M. M. Metivier, M.D.

Mount Holyoke, Mass.

THE DETECTION OF STONE IN THE BLADDER.

To the Editor of The Medical Record.

Dear Sir:—Some months ago (September last), in conversation with Dr. E. W. Dulles, of this city, upon supra-pubic lithotomy, I mentioned a method of examination for "stone" which I felt confident would insure the detection, not only of those of medium size, but also very small particles, which would otherwise escape the notice of the examiner, through dulness of tactile sensibility in the fingers.

My plan was to lengthen the sound several inches, for reasons which will be at once obvious to you, and after inserting it into the bladder, grasp the end between the teeth, and make the exploration in the ordinary manner; or else attach wire to the sound, grasping it as before stated, and manipulating in the ordinary way.

If we consider the unerring sensitiveness of the teeth in the detection of a hair, or a very minute piece of grit between them, and also that the impression is conveyed to the ear by means of sound, we see at once that we have at our command two of the most trustworthy means of diagnosis, viz., tact and auscultation. A vibrating tuning-fork, placed upon the teeth, gives a shock which one is not apt to forget or likely to fail to hear, and so it would be in the case of a sound held between the teeth, and coming in contact with a roughened or hard substance, though perhaps in a less intense degree.

Having seen an article in a recent number of your journal, suggesting wires from the sound to the ear, I have been induced to communicate with you, though I intended to delay my communication until I had had an opportunity to make a practical test upon a human subject. I have had, as yet, no such opportunity, but a bamboo cane (three feet long), a bladder of water, and a stone, has convinced me of the increased perceptive sensitiveness of the teeth over that of the hand, and I offer the suggestion for what it is worth, in its crude and unverified form.

Very respectfully,

William D. Ronaldson, M.D.

Philadelphia, Pa.

THE PREPARATORY TREATMENT FOR OVARIOTOMY.

To the Editor of The Medical Record.

Dear Sir:—I herewith send you, for insertion in your columns, the report of a most interesting and successful case of ovariotomy, just sent to me by Dr. J. Williamson, of Ottumwa, Iowa. Considering the strong growth of the tumor, the size of it, the character and extent of the adhesions, and the eminently successful result of the treatment, I think the case cannot fail to interest your numerous readers. The principle of preparatory treatment, coupled after the operation with rectal alimentation and the continuous use of large doses of quinine and opium,

until all danger is passed. It is, I conceive, a most important case, if correct; and I think no case could be adduced that more strikingly illustrates the value than the one. Of the eight cases published by me in the Record, May and August, current series, with one of double ovariotomy since successfully treated, there is only one (Bridget D., that approaches in severity Dr Wilkinson's case, and yet his result is just as satisfactory as any of mine, without even the employment of the Lister spray of carbolic acid, to which I attached, in the treatment, much importance. If, therefore, further experience should teach that such results as this can be achieved without the trouble and disagreeableness of the Lister spray in the way here described, and by those the practice may be said to possess still more value, as I to prove a greater advance upon our former therapeutical resources than was first materialized by me in presenting it to the profession.

Yours very truly,

NATHAN BOZEMAN, M.D.

NEW YORK, Dec. 9, 1879.

The following is Dr. Williamson's letter:

DEAR DOCTOR:—Your articles on ovariotomy, published in the MEDICAL RECORD some months ago, very much interested me at the time I read them, especially your views on the importance of rectal alimentation and the anti pyretic properties of quinine and opium in the after treatment, used in the doses and manner there directed. It is because I think that the case I here bring to your notice goes far to confirm the correctness of your views that I have presumed to bring it to your attention at all. And let me say that neither experience nor operative skill (beyond that possessed by the average country doctor) had anything to do with the successful results of the case, having never made the operation but once before. I attribute the recovery of the patient to the management before and after the operation, and in this I followed your plan to the letter.

The patient was thirty-one years old; the tumor had been growing fourteen years. Ten years ago she was as large as a woman of eight to nine months' pregnancy. Of late years it grew slowly. Last January her physician tapped her and drew off *eight gallons* of fluid. In August following she was again tapped and five gallons removed. I was invited to see her, and requested to make the operation, and October 29th was fixed upon as the time. The preparatory treatment which you recommend was carried into effect for the week preceding the operation. On the day named the operation was made. Abdominal incision was seven to eight inches in length. The examination revealed extensive and firm adhesions. Sac emptied and closer inspection revealed that the uterus, intestines, omentum, were all extensively and firmly adherent; also numerous and strong ligamentous bands connected to the abdominal walls of the right side. Sac was removed by *enucleation*. By means of fingers, knife-handle and edge, and ecraseur, after sixty minutes of labor, the adhesions were detached, and the sac stripped, leaving an extensive area of denuded surface, with bundles of belts and ribbons stripped from the sac. Seven or eight vessels besides those of the pedicle were tied. Peritoneal cavity was thoroughly cleansed, and the belts of loose membrane carefully spread out. The wound was closed with carbolized silk sutures, dressed with cosmoline, cotton applied over abdomen, and a bandage over all, and patient then put to bed. Reaction was slow, for which I was glad, diminishing, as I thought, the risk of hemorrhage.

Now commenced the after treatment per rectum, as advised. I think you will agree with me that here was a case that would almost certainly become septicæmic, and that if it was carried through without becoming so, antisepsis would be entitled to great credit.

Fluid beef peptone and opium, per rectum, were administered *regularly*. Rectum remarkably retentive.

First ten days' average daily Quinine 45 grs.
" " " " " Tr Opium 6 drs.
" " " " " Fluid beef 10 ozs.

Very little by stomach.

Pulse during the time never above 100; temperature 99–100. 10th to 13th, rectum suspended. Pulse rose to 115, temperature rose to 102½. Quinine resumed in 10 gr. doses every six hours. Pulse dropped to 98–104, temperature dropped to 99.

From the time patient recovered rapidly, and twenty-eighth day after the operation walked out.

Now, Doctor, I think I am not over enthusiastic in claiming that antipyretic and supporting treatment saved this woman. I regarded the case as an unfavorable one for an operation, in view of the size of the tumor—fourteen years at least—its great size—estimated at sixty pounds—the extensive and firm adhesion. No antiseptic, except carbolized water (that is, Lister's *spray* was not used. No drainage tube was inserted (which I think was a mistake). The cyst was a simple, multiple, non proliferating cyst, thick and firm in texture.

Hoping I have not troubled you without cause,

I am yours truly,

J. WILLIAMSON.

DEC. 4TH, 1879.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 4, 1880, to January 10, 1880.

HEGER, A., Major and Surgeon. To proceed, on or before February 1, 1880, to San Antonio, Texas, and report in person to the Commanding General Department of Texas, for assignment to duty. S. O. 3, C. S., A. G. O.

CLEMENTS, B. A., Major and Surgeon. Having relinquished his leave of absence, assigned to duty at Willett's Point, N. Y., relieving surgeon Anthony Heger. S. O. 3, A. G. O., January 6, 1880.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, October 1, 1879 to December 31, 1879.

BAILHACHE, P. H., Surgeon. Relieved from duty, port of New York, and ordered to Philadelphia temporarily, thence to resume his duties as member of the National Board of Health, Oct. 25, 1879.

HUTTON, W. H. H., Surgeon. Relieved from duty, port of New Orleans, and ordered to Detroit, Nov. 1, 1879.

FESSENDEN, C. S. D., Surgeon. Relieved from duty, port of Portland, Maine, and ordered to New York, Oct. 25, 1879.

DOERING, L. J., Surgeon. Relieved from duty, port of Philadelphia, and ordered to Portland, Maine, Oct. 25, 1879.

AUSTIN, H. W., Asst. Surgeon. Relieved from duty, port of Key West, and ordered to New Orleans, Nov. 1, 1879.

Stoner, G. W., Asst. Surgeon. Relieved from uty, port of Buffalo, and ordered to Philadelphia. ct. 25, 1879.

Fisher, J. C., Asst. Surgeon. Detailed as Chair- an of Board for the Physical Examination of Can- idates for Promotion in the Revenue Marine Service, ov. 20, 1879. Granted leave of absence for nine ays from Dec. 19, 1879, Dec. 17, 1879.

Godfrey, John, Asst. Surgeon. Ordered to pro- eed to New Orleans, for temporary duty during ill- ess of Surgeon Austin, Dec. 29, 1879.

Goldsborough, C. B., Asst. Surgeon. Detailed as ecorder of Board for the Physical Examination of andidates for Promotion in the Revenue Marine ervice, Nov. 20, 1879.

White, R., Jr., Asst. Surgeon. Ordered to Buf- lo, Oct. 24, 1879. Orders to Buffalo, revoked; or- ered to report to Surgeon Fessenden, New York, r duty, Nov. 12, 1879.

Irwin, Fairfax, Asst. Surgeon. Upon expiration f leave of absence to proceed to Charleston, S. C., ct. 31, 1879.

Glazier, W. C. W., Asst. Surgeon. Relieved from uty, port of Charleston, S. C., and ordered to Key Vest, Fla., Oct. 31, 1879.

Cooke, H. P., Asst. Surgeon, Relieved from duty, ort of Pensacola, Fla., and ordered to Buffalo, N. ork., Dec. 1, 1879.

O'Connor, F. J., Asst. Surgeon. Ordered to Phil- delphia for temporary duty, Nov. 10, 1879. Ordered o Buffalo, N. Y., for temporary duty, Nov. 12, 1879. When relieved by Asst. Surgeon Cooke, to rejoin his roper station, Dec. 9, 1879.

Porter, F. D., Asst. Surgeon. Assigned to tem- orary charge at Detroit Marine Hospital, Oct. 25, 879. When relieved by Surgeon Hutton, to pro- eed to Chicago, and report for duty to Surgeon Mil- er, Dec. 17, 1879.

PROMOTIONS.

Austin, H. W., Surgeon. Promoted to be Surgeon rom Nov. 1, 1879. Nov. 3, 1879.

Gassaway, J. M., Passed Asst. Surgeon. Pro- noted to be Passed Asst. Surgeon, Dec. 12, 1879.

Smith, Henry, Passed Asst. Surgeon. Promoted o be Passed Asst. Surgeon, Dec. 12, 1879.

Stoner, G. W., Passed Asst. Surgeon. Promoted o be Passed Asst. Surgeon, Dec. 12, 1879.

RESIGNATIONS.

Ellinwood, C. N., Surgeon. Resignation accepted, o take effect Oct. 2, 1879.

Brown, J. A., Surgeon. Resignation accepted, to ake effect Nov. 1, 1879. Nov. 7, 1879.

Dana, C. L., Asst. Surgeon. Resignation accepted, o take effect Nov. 15, 1879, Nov. 11, 1879.

A Medical Scandal.—There is a wretched scandal about a physician in a neighboring city, who, by his attentions to a lady patient, excited, perhaps justly, the jealousy of her husband. The crisis came, final- y: the husband shot the doctor in the shoulder, and was himself shot in the hand.

From the facts so far given, the doctor was plainly in the wrong. We do not know how far. It is a disagreeable, but happily a rare duty, to have to chronicle such incidents. The education and the peculiar relations of physicians should make them the last to allow a disgusting sensuality to override the restraints of professional honor and social de- ency.

Medical Items and News.

Contagious Diseases — Weekly Statement. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 10, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small pox.	Yellow Fever.
Jan. 3, 1880....	0	6	37	2	158	36	0	0
Jan. 10, 1880...	0	7	51	3	283	42	0	0

Charity Hospital, Blackwell's Island.—At the meeting of the Medical Board, held January 2d, at 12 West Thirty-first Street, Drs. Thomas R. Pooley and Charles Carroll Lee resigned as Visiting Surgeons to Charity Hospital. The Board of Commissioners of Public Charities and Correction has appointed Drs. E. S. Peck and John H. Swasey to the respec- tive vacancies.

New York Sanitary Reform Society. This so- ciety was organized on the 1st of December last, with the object of aiding in improving the sanitary con- dition of the city, and especially of the tenement- houses. The Society met Commissioners Chandler and Janeway on the 10th inst. and heard a report from the former upon the progress of the work of improving the tenement-houses during the past sum- mer. The provisions of the Tenement-house Act of last spring are now being strictly carried out. Builders are obliged to submit their plans to the Board of Health; at first, when this was done, changes had to be made in almost every case. Now the reverse is the rule, and both architects and builders are becoming satisfied with the new plans.

The various work of the past summer was detailed; but the facts have already been given in these col- umns.

Medical Society of the County of Kings.—The regular annual meeting of this society will take place January 20th. At that time there will be an election of officers of the society and of delegates to the State Medical Society. Reports of Committee on By-Laws and reports of officers will be made.

New York Academy of Medicine.—At a stated meeting held January 8th, Dr. Frank H. Hamilton was elected Vice-President; Dr. Edwin F. Ward, Recording Secretary; Dr. John G. Adams, Corre- sponding Secretary; Dr. Horace P. Farnham, Treas- urer; Dr. Wm. T. White, Trustee; Dr. M. Blumen- thal, Member of Committee on Admissions; Dr. J. C. Dalton, Member of Committee on Education; Drs. A. B. Judson, A. H. Smith, and V. P. Gibney, Mem- bers of Committee on Ethics; Dr. E. Darwin Hud- son, Member of Library Committee; and Dr. C. F. Billington, Delegate to the State Medical Society.

Report of the National Board of Health.—The annual report of the National Board of Health has been presented to Congress. It recites its work in the past summer; presents the data it has collected in regard to the best plan for a national public health organization, and concludes with a series of eight recommendations. These are:

1. That for the present no change be made in the organization of the Board.

2. That the Board be authorized by law to confer its powers and duties on an executive committee.

3. That the Board continue its special work of the investigation into the sanitary state of the Delta of the Mississippi, and that $50,000 be annually allowed for this purpose.

4. That the Board take steps to secure uniformity in observing vital statistics throughout the country, and that it call a convention for this purpose.

5. That the act to prevent the introduction of contagious and infectious diseases into the country have its scope enlarged and its penalties more definite, and that foreign consuls be detailed to give bills of health to vessels coming to our ports.

6. That the Board be empowered to report to the President when any locality is dangerously infected, and that, thereupon, interstate transportation, as regards that locality, shall be forbidden except under the rules of the Board.

7. That the President be authorized to call an international sanitary conference to meet at Washington.

8. That the Board at once establish quarantine stations near the mouth of Chesapeake Bay, at Brunswick, Ga., and near Ship Island in the Gulf of Mexico, these to be manned by the National Board of Health. The cost of these would be about $100,000. It is recommended that inspection stations for steamboats be established on the Mississippi river at New Orleans, Vicksburg and Cairo, the cost to be about $35,000. In regard to a refrigerating ship, it is not considered expedient that the contract for such a ship, if given, should be given to the lowest bidder.

The expenditures of the Board up to Dec. 31, 1879, were $154,002. For the expenses of the coming year it asks $180,300. It also advises an appropriation of $100,000 more, to be kept as a reserve, in case of emergency, and to be used in inland quarantine.

THE ANDIPHONE A FAILURE.—Dr E. T. Ingall states that Messrs. Sharp & Smith, of Chicago, have been testing the andiphone carefully for some time, and have not found patients benefited by it. Out of 150 successive cases of deafness, they report that not a single one noticed any benefit from its use.—*Chicago Medical Journal and Examiner.*

A NEW JOURNAL.—A new journal has appeared in Baltimore. It is called *The Practitioner*, and announces itself to be an independent monthly journal, devoted to medical, surgical, obstetrical, and dental science. It is to be edited by Harvey L. Byrd, A.M., M.D., and Basil M. Wilkerson, D.D.S., M.D. The contents of the first number are very good, and the typographical appearance of the journal excellent. We are inclined to criticise the name it has taken. There are now four journals having an almost similar title: *The Practitioner*, of England; *The American Practitioner*, of Louisville; *The Country Practitioner*, of New Jersey; and the journal now before us. The editor speaks confidently of the future, and we trust he will not be disappointed.

THE LIEUTENANT-GOVERNOR OF THE PROVINCE OF QUEBEC. The afore Robitaille, is a physician, who, though actively engaged in politics, has kept up his relations with the profession, and has been for years a governor of the College of Physicians and Surgeons of the Province of Quebec.—*Canada Medical Record.*

DEATH OF DR WILLIAM BUDD.—Dr William Budd, F.R.S., died at his house in Bristol, England, at the age of 69. Dr Budd has long been a prominent physician. He has been lecturer in the Bristol Medical School, and has written many scientific papers, the best known being that on Contagious Diseases.

DESTRUCTION OF OXYURIS.—Dr W. B. Dare reports several cases where he has used chloride instead of oxide, and has found it to produce marked contraction of the uterus. He asks for the experience of others in the matter.—*Medical Brief.*

HERMAPHRODITISM.—Dr Samuel Wolfe of Shippack, Pa., writes: A few days ago, I had the opportunity to inspect the genitals of an individual, who had reached the age of seventy-six, who, though he had dressed in male clothes, had been married as a husband and was entitled to the other social privileges of a male, had always been regarded by his friends and the community as an hermaphrodite. He was beardless, had a voice like a woman's, his habits and manners were effeminate, and his married life had been childless.

The genitalia, however, revealed nothing unusual except that there was congenital phymosis, only a sparse crop of very short hair, and a development in size, about equal to that of a boy of eleven or twelve.

Authorities teach us that true hermaphroditism consists in the possession of the distinctive organs of both sexes, in the same individual. The only organs that can be so regarded being the testicle and ovary; the testicle, according to Simpson, nearly always in the position for the right ovary, while the ovary is on the left. The external organs in these cases exhibit, to a more or less developed condition, both the male and female characteristics. True bi-sexuality in the human species, when judged by the criterion, is extremely rare, though of its existence there can be no doubt. There are, however, many persons, who, from a mere superficial examination, are with great difficulty referred to either sex. Many females, go through life in the character of males, while a probably lesser number of males are brought up as females. It is undoubtedly true, that a skilful scientific inspection, generally during childhood, and nearly always at puberty, would result in relegating these unfortunates to their proper sphere.

Not only every physician, but almost every other person, is acquainted with males and females who have the reputation of being hermaphrodites. Such errors arise, in many instances, from the personal manners and appearances of those whose married life remain unblessed by the birth of children, and is certainly favored by the carelessness and probably ignorance, with which medical men put technical terms into the mouths of the public. Such cases can, no doubt, often be found to correspond with the one I have described in the beginning of this article, and with us rests the responsibility of protecting these unfortunates. This is best done by teaching, when circumstances admit, the rarity of hermaphroditism; by never using the term, except when applying it to actual bi-sexuality; and by losing no opportunity to personally thoroughly examine individuals thus ostracised, giving to them a true statement of their condition, and of the place in society it fits them to occupy.

TO REMOVE PLASTER-OF-PARIS FROM THE HANDS.—Dr. T. E. Wilcox, Asst. Surgeon U. S. Army, writes: A little bicarbonate of soda or potassa added to the

water in which the hands are washed after applying plaster-of-Paris bandages, etc., immediately removes the unpleasant feeling left by the plaster.

Iowa State Medical Society.—The Twenty-eighth Annual Session of this Society will be held in Des Moines, Iowa, beginning January 27th, and continuing three days. Many interesting papers are promised. Reduction of railroad fare to and from the meeting can be obtained by addressing the Secretary, Dr. J. F. Kennedy, Des Moines, Iowa.

New York Laryngological Society.—At the annual meeting of the New York Laryngological Society, held at the Academy of Medicine, December 19th, the following officers were elected: President, Dr. R. P. Lincoln; Vice-President, Dr. Louis Elsberg; Secretary and Treasurer, Dr. William F. Duncan.

Small-pox in Washington.—The number of cases of small-pox in Washington, at any one time, has been from 15 to 20. Few new cases have been reported of late, and it is thought that the disease has ceased to spread. The work of vaccination has been vigorously prosecuted by the Health Department, 500 to 600 cases a day being attended to.

Death of Dr. David L. Eigenbrodt.—Dr. David L. Eigenbrodt died in this city, on January 3d, at the age of 69. He was born in Jamaica, L. I., and was educated at Columbia College and the College of Physicians and Surgeons. He practised medicine for some time in New York, being connected at different times with Bellevue, St. Luke's, and New York Hospitals. He had for many years retired from active practice.

Rapid Dilatation of Os.—Dr. J. W. Flynn, of this city, sends us an account of a case of puerperal convulsions in a primipara, in which a rigid os was dilated by the unaided hand, introduced wedgewise, in twenty minutes. The woman recovered, but the doctor's hand still aches.

Rectal Hemorrhage in Infancy.—Dr. J. A. McGuire, of Salem, Ohio, writes: In your Medical Record of September 27, 1879, I see an article on rectal hemorrhage in infancy. It is the first I have ever seen describing the lesion. The author suggests that it is of very rare occurrence, which induces me to report a case that came under my care, with much the same history. I was called, December 27, 1878, to see Mrs. R——, aged 22 years, in her first confinement. She was a healthy, vigorous woman, of short, stout build. On arriving at the bedside I found her in the first stage of labor, which was well advanced. Everything progressed favorably, and in about three hours she was delivered of a fine, plump male child, weighing about eight pounds. I called on the evening of the 28th, and learned that everything had gone well. The child's bowels had moved, kidneys had acted, and it had nursed. On the morning of the 30th, at 1 A.M., a messenger came for me in great haste, stating that the "child was bleeding at the navel." I hastened to see what the cause of the alarm was; on unwrapping it, I found that the hemorrhage was from the bowel, instead of the umbilicus, as stated. I estimated that about one and one-half ounces of blood had passed. I ordered that a solution of alum should be thrown into the rectum with a syringe, and in order to insure its retention, to hold a folded napkin firmly against the anus. I prescribed: R. Flu. ex. ergot (Squibb's), ʒ i. gallic acid, ʒ i. M. Sig. 10 to 15 gtts., in water, every one or two hours. I visited the child again at 1 P.M., learned that there had been two discharges of blood within the last twenty minutes. The child showed symptoms of exhaustion. I passed a gum catheter up the rectum four or five inches, and injected a diluted solution of liquor ferri subsulphatis, through it, by means of a syringe; ordered the patient to be wrapped in warm blankets, and wine to be given freely. After this the child seemed to revive—the pulse growing stronger. At 9 P.M., there was another discharge of blood, followed by cold extremities and more marked exhaustion. I packed the rectum with small tampons of cotton, saturated with the above styptic solution, continued stimulants, used friction to extremities, but at 12 M. the child succumbed, apparently from asthenia. On withdrawing the tampon from the rectum, a small amount of blood followed. There was no autopsy permitted. The author of the above-mentioned article suggests that if he had packed the rectum with cotton-batting and some styptic, he might have saved the life of his patient. As that line of treatment did not avail in my case, I am led to think that the lesion that led to the hemorrhage must have been higher up the bowel than Dr. Manly found in the case reported by him. He found an opening in one of the larger intestinal veins, situated about three inches from the anus, which admitted of the introduction of a bristle. It is possible that if it were proven by statistics that the lesion leading to such a fatal issue, as in the above two cases, was invariably situated within the reach of mechanical aid it might lead to the saving of life. I would be pleased to see other cases reported with results of autopsia examination.

Hydrobromate of Quinia for Hypodermic Use.—Dr. J. A. White stated to the Richmond Academy of Medicine that a solution of the hydrobromate of quinia was extensively used by Baltimore physicians for hypodermic injection. He had never seen it produce abscesses or local irritation, although he had used the equivalent of fifteen grains.—*Va. Med. Monthly.*

Apomorphia in Asthma.—One-tenth of a grain of apomorphia, injected hypodermically, will relieve the orthopnœa of asthma in a surprisingly short time.—*North Carolina Med. Jour.*

Health of New England.—The inhabitants of the Connecticut, Ammonoosuc, and Passumpsic valleys, from Massachusetts to Canada, have been unusually free from typhoid fever, diarrhœa, and dysentery during the year 1879. Diphtheria has prevailed fatally in many localities, especially in Vermont and New Hampshire.—*Boston Med. and Surg. Journ.*

Student's Societies.—There exist in Harvard and the Philadelphia medical colleges clinical conferences among the students of the graduating class. These meetings are considered useful to the students. We believe that among the 1,400 students in this city there are no regularly organized societies. If there could be some certainty that student organizations would not cultivate beer and tobacco, to the exclusion of medical science, we might expect much good of them. When students congregate, however, there is always a danger that a bibulous propensity will overcome professional enthusiasm. We advise students to be wary of organizing.

Medical School of Maine.—The vacancy in the chair of pathology and practice, occasioned by the resignation of Professor Palmer, has been filled by the election of Dr. Israel T. Dana, of Portland.—*Boston Medical and Surgical Journal.*

THE ELECTRIC LIGHT IN SURGERY.—On December 11th Mr Berkeley Hill operated before the Clinical Society of London at University College Hospital by means of the electric light. This consisted of a glowing platinum wire enclosed in a glass chamber, which was fixed enclosed in another glass cover. Between the two a current of water flowed. It worked very successfully.

QUARANTINE REGULATIONS.—A bill has been introduced in Congress, by Mr Ashley, of Louisiana, for the regulation of inter-State freight and passenger, and to remove the same from the restrictions of local quarantine.

DR. E. B. ALDECOTT.—Dr. E. B. Aldecott, Surgeon-General of Wisconsin, and a member of the Board of Managers of the National Soldiers Home, died of pneumonia at his residence, in the city of Milwaukee, January 6th, after an illness of a few days. He was seventy-five years of age, and was widely known throughout the Northwest.

HEALTH OFFICER OF THE PORT OF NEW YORK.—It is rumored that a nomination for Health Officer of the Port of New York will be sent into the Senate very soon. Dr Vanderpoel has held the place for eight years, and now some one else wants it. Dr. Wm M. Smith, of Angelica, Allegany County, is a reputed candidate. Gov. Cornell, however, is said to be a homœopathist in belief (it is probably his wife), and may nominate a gentleman representing that phase of psychological aberration. Dr Darwin E. Jones, of Albany, is reported to have the best chance.

"AND THIS IS ROME!"—Rome at present has a death-rate of 40 per 1,000, and is the unhealthiest city in the world, so far as is known, except Alexandria.—*Medical Press and Circular.*

STOKES ON THE CHEST.—The New Sydenham Society is to reprint the classical work of Dr. Stokes on Diseases of the Chest. Dr. Alfred Hudson is to be the editor.

PROFESSOR HEBRA.—The distinguished dermatologist, Professor Hebra, has been made a Hofrath, on account of the great service he has rendered to science.—*Boston Medical and Surgical Journal.*

INJURY OF EYES FROM CHLORAL.—Dr. G. W. Holmes, of New York, writes: "Noticing, in the Record of January 3d, a communication from Dr. Felton, Haverhill, Mass., that two cases of injury to the eyes, from the use of chloral, came recently to his knowledge, and asks, 'Has chloral ever before been known to produce a similar effect?' I would state during December last, I had under my care a very intelligent gentleman, from Alabama (cotton dealer), who occasionally took enough champagne, at dinner, to produce nervousness and loss of sleep. He stated his doctor frequently gave him chloral under similar circumstances, which acted nicely, except making his eyes very weak for several days, and requested me not to give it to him. After trying the bromides, the following night I gave him grs. xv. of hydrate of chloral (carefully disguising the taste) every two hours for three successive times, which had the desired effect of producing sleep; then followed the same painful eyes as on former occasions after taking the drug. He stated to me the next morning that there certainly must have been chloral in the medicine I gave him, as his eyes were very sore.

DEATH OF SOELBERG WELLS.—Dr. Soelberg Wells died at his home in London, Dec. 8th. Dr Wells was professor of ophthalmology in King's College, London, and ophthalmic surgeon to King's College Hospital and to the Royal London Ophthalmic Hospital, and author of a well known work on diseases of the eye. Apart from his professional attainments, Dr Wells was a man of the social qualities, and an excellent companion. He died while yet hearty and hale, only in his 48th year.

JOURNALS DEAD AND NEW BORN.—*The [illegible] Medical Review and Index, The London Medical Record, The National Medical Review, The New York Medical Journal, Sanitary Engineer, Public Health, Archives of Medicine, [illegible] Medical Herald.*

THE PHILADELPHIA ACADEMY OF SURGERY.—An application for a charter for a new medical and surgical institution has just been filed in the Prothonotary's office in Philadelphia, by A. Haller Gross, Esq., who represents the medical gentlemen instrumental in starting the enterprise. It is to be called the "Philadelphia Academy of Surgery," and the objects of the organization are the cultivation and improvement of the science and the art of surgery, the elevation of the medical profession, the promotion of the public health, and such other objects as may come legitimately within its sphere. With these purposes in view, when the Academy is established, a suitable hall will be selected where the members can meet at stated intervals, and read essays and discuss matters pertaining to medical and surgical affairs. The temporary officers of the academy are: President, Dr. A. Hewson; Secretary, J. Ewing Mears; and Treasurer, Dr Wm Hunt. It is expected that the building at Thirteenth and Locust, belonging to the College of Physicians, will be selected for the new academy.

The following gentlemen were the originators of the enterprise: Drs. S. D. Gross, D. H. Agnew, A. Hewson, J. H. Brinton, J. Ewing Mears, T. G. Morton, S. W. Gross, O. H. Allis, J. H. Packard, R. J. Levis, C. T. Hunter, Wm. H. Pancoast, H. Lenox Hodge, J. Ashurst, Jr., F. Willard, Samuel Ashurst, J. B. Roberts, and W. W. Keen.

A FŒTAL WALRUS.—At the last meeting of the Philadelphia Academy of Natural Sciences, Dr. Harrison Allen described a fœtal walrus which had been presented to the Academy some years ago by Dr J. J. Hays, who had brought it from the Arctic regions of eastern North America. The specimen is nearly three inches long, of a waxy white color, without the slightest trace of hair, and is nearly straight. This latter characteristic distinguishes it at once from the embryos of other carnivora. There is neither flexure of the head upon the trunk or the trunk upon itself. The limbs are closely folded upon the body. The muzzle exhibits the future position of the bristle by six rows of minute papillæ. The specimen is said to be unique.

HOSPITAL SATURDAY AND SUNDAY.—The collections for the hospitals on the last Saturday and Sunday of the year amounted to about $75,000.

BOOKS RECEIVED.

ANNUAL REPORT OF THE DIRECTOR OF THE MINT to the Secretary of the Treasury for the Fiscal Year ending June 30, 1879. Washington, D. C., 1879.

PHARMACOGRAPHIA: A HISTORY OF DRUGS OF VEGETABLE ORIGIN. By F. A. FLÜCKIGER and D. HANBURY, F.R.S. Second edition. London: Macmillan & Co. 1879.

Original Lectures.

A CLINICAL LECTURE ON THE TREATMENT OF LEUCORRHŒA.

By T. GAILLARD THOMAS, M.D.,

PROFESSOR OF GYNÆCOLOGY IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

(Phonographically reported for THE MEDICAL RECORD.)

GENTLEMEN:—I want to make use of the cases that come before us to-day, not only to lecture upon their individual peculiarities, but to call your attention to one condition which exists to a greater or less extent in all of them, and that is leucorrhœa. You will find when you get into practice that these cases will annoy you more or less constantly, because of the difficulty in curing them. It is not with these cases as with those of phthisis, where you can assure your patient that she is improving under your treatment, and convince her of the correctness of your assertion. Here you cannot deceive her, for she has a better opportunity of deciding that question than yourself, and although you assure her that she is improving under your treatment, she is positive she is not one bit better than when she came to you—rather worse; and one of the miseries of the gynæcologist is to have some woman pestering his life, because he cannot cure her of her leucorrhœa.

I want now to refer to the several cases which I have selected for to-day's clinic. I have several times made the remark to you, that the man who does not practice surgery in gynæcology had better give up its practice entirely, for there are many cases where the use of the knife, even if it be only to a very slight degree, may effect a cure, where a prolonged course of treatment without it has entirely failed. I want to apply these remarks to some of the cases which come before us to-day, and when I speak of the use of the knife, I allude to it as a representative surgical instrument; scissors, the curette, and the pessary are surgical instruments, all of great value, but I speak of the knife as the representative of all instruments necessary for the proper treatment of these cases.

Our first patient, Mrs. Julia M——, is a native of Germany; has been married eight years, and has had two children and two miscarriages. Ten months ago she had a miscarriage, which was the last time she was pregnant.

Q. "How long have you been sick, madam?"

A. "I have not been well since I was fourteen years of age, but I have been much worse during the last ten months."

Q. "Have you ever been well since your miscarriage, ten months ago?"

A. "Not entirely well."

Q. "Tell us about your sickness."

A. "Two months after my last miscarriage I had a 'period' and began to flood; this continued twenty-one days."

Q. "And what then?"

A. "You took two pieces of the after-birth from me, and it stopped."

It seems that I saw her at this time, and now I recollect the fact that it was in consultation with her physician. I was asked to see her and found her blanched, with a small, feeble pulse and very weak, for she had flooded to a dangerous degree. The uterus was very large, and the view which I took of the case was, that the patient had some portion of the fœtal shell, for it could no longer be spoken of as placenta, left in the uterus, and that this flooding was a natural consequence of its prolonged retention. With the doctor's consent I made an examination, and convinced myself of the correctness of my first suspicion. I recommended the introduction of a sponge-tent to dilate the cervical canal, which the doctor did, and on the following day I removed from the cavity of the uterus two small pieces of the fœtal shell, each about the size of the distal phalanx of my index finger, and one day later the hemorrhage ceased.

Q. "Have you been well since that time?"

A. "Not entirely, for I have pain through my bowels, and am troubled a great deal with the whites."

We made an examination of this patient to-day, of course, and let me show you, upon the manikin, what I found. The uterus was quite large, something like the one I now place in position upon our model, and dragged down upon its supports so that the cervix had descended into the pelvis lower than it ought to be; and it is this condition which has caused our patient the pain and dragging sensation through her abdomen. Our patient says she has leucorrhœa, and now we want to talk of the method of curing leucorrhœa in her case. When I saw this case, eight months ago, there was no question about the loss of a large amount of blood. Her condition was a precarious one, and my attention, at that time, was directed to giving immediate relief. After I removed these fœtal-shell masses with a large curette, the hemorrhage ceased the next day, and I heard nothing further of the case. Since that time her menstrual periods have been, she now tells me, of only about two and a half days' duration. The uterus still remains large, swollen, tender, and heavy, and lower in the pelvis than normal. Now, what is the cause of it? This condition of the uterus is unquestionably the cause of the leucorrhœa, and the condition consists in what is commonly called subinvolution of the uterus; that is to say, the uterus has never returned to its original size since the miscarriage which occurred ten months ago. Now, what stopped involution of the uterus? Unquestionably the retention of these masses of placenta; there was no laceration of the cervix. These masses were retained in the cavity of the uterus for two months before any hemorrhage occurred. Their presence served to keep up a condition of passive congestion or subinvolution of the uterus, and this subinvolution affected not only the parenchyma of the organ, but also, as usual, the lining membrane became deranged, and in consequence thereof we have had a leucorrhœal discharge ever since. I believe if this patient were only put upon uterine and vaginal injections, it would be a long time before the leucorrhœal discharge was arrested; and it is very questionable whether she could ever be entirely cured by this means. But if we take this view of the case, that, owing to the presence of retained masses of the placenta, involution was prevented, thus giving rise to changes in the uterine tissue, and derangement of the mucous membrane, our treatment will be more intelligent and successful. I believe that this leucorrhœa could be rapidly checked by passing a curette up to the fundus, either after or before dilatation of the cervix (I do not think this case would require dilatation), and drawing it gently over both walls of the uterus. This process would probably

result in depriving ten or twenty little growths over the lining membrane of the uterus, that is fungoid growths which being removed, the leucorrhœa would rapidly disappear. Now, you might ask the question, and it would be a very pertinent question, Why do we not have bleeding if these fungoid growths are present? I answer, they may remain there a long time without the occurrence of hemorrhage, but hemorrhage is likely to occur at any time. This patient tells me that she carried two pieces of placenta in her uterus for two months after her miscarriage before any hemorrhage occurred, and in her present condition we may have hemorrhage coming on at any time. The point I wish to make is this, that in many cases of leucorrhœa you will accomplish more by one application of a dull wire over the lining membrane of the uterus, thus removing these little growths which keep up a flux of blood to the endometrium, than you could by any other plan of treatment. If this patient were under my care I would pass a curette cautiously and gently, but with sufficient force, to dislodge any of these fungoid growths on the inner wall of the uterus. After this I would keep her quietly in bed for forty-eight or fifty-six hours, watching her condition as to the occurrence of pain or increased temperature. After this I would support the uterus by means of a pessary, and why? Because it would be getting lower and lower in the cavity of the pelvis whenever the patient went about her work; or, if she were a lady of leisure, the same thing would occur when taking the necessary exercise for her health. Consequently, I would put the uterus in a sling to relieve the pain due to downward traction, and to diminish the congestion of the uterus by preventing its dragging upon the ligaments which contain its blood-vessels. Having removed the cause of the abnormal condition of the lining membrane of the uterus, I would put her upon ergot or viscum album. This viscum album I have been using considerably of late, and find it very efficacious in many of these cases. I would employ it in the form of the fluid extract, for the purpose of making tonic contraction of the uterus. If this did not work, or if it disagreed with the patient, I would give twenty-drop doses, three times a day, of Squibb's fluid extract of ergot, and, I believe, by this means, gradually the subinvolution would be removed, and her leucorrhœa would soon disappear.

Our next patient is Mrs. Catharine M. B——, a native of the United States, forty-nine years of age; has been married twenty-five years, and has had one child, but no miscarriages; her child is fifteen years of age.

Q. "How long have you been sick, Mrs. B——?"

A. "I have never been well since the birth of my child."

Q. "How have you been complaining during the last fifteen years?"

A. "I have pain in my back and in my groins; am very nervous, and cannot sleep."

Q. "Anything else?"

A. "I perspire a great deal."

You see, gentlemen, she looks very pallid.

Q. "How about your menstrual periods — have they stopped?"

A. "Yes, sir, some years ago."

Upon feeling of her pulse, I find it excessively weak. She looks like a woman who has some serious organic disease, some pulmonary or renal disease, or something of the kind. She looks older than a woman of forty-nine years. She suffers from leucorrhœa. I have picked the cases which I present to you to-day, so as to call out the treatment of leucorrhœa. If you are going to encounter cases of leucorrhœa — and these cases will follow you throughout your practice as gynecologists — you must persist in trying to get at the cause of each case, and although this will not be possible in many instances, and you will find cases which will battle all treatment, nevertheless it is the plan to be adopted as offering a clearer insight into the pathology of this class of cases. Now, what is it that is impoverishing this patient's blood? Very likely the leucorrhœa has a great deal to do with it. The leucorrhœal discharge continues, although she has passed her menopause. She is thus losing a large quantity of the albuminous portions of her blood, in consequence of which her nervous system has become depressed. Her appetite is poor, and although I have not inquired in regard to her bill of fare, I think it is not a very prolific one.

Q. "What do you eat for breakfast?"

A. "I do not feel like eating much in the morning. I usually take a little bread and butter, with perhaps some preserves and coffee."

Q. "When do you eat your next meal, and of what does it consist?"

A. "I usually do not get hungry before three o'clock in the afternoon, and then I generally eat a small piece of beefsteak, together with bread and some vegetables, as canned corn, turnips, or potatoes."

Q. "When do you take your next meal?"

A. "I do not dare to eat much at night; I usually take a cup of tea, together with bread and butter, and some sort of sauce."

Q. "And is this a fair specimen of your daily diet?"

A. "Yes, sir."

Well, gentlemen, I have nothing to say about that bill of fare, other than I think every student of medicine, after graduating and before entering upon practice, should be kept upon it about two weeks, so as to impress upon his mind how these patients are kept sick. Just compare that bill of fare with what a man in active life eats; compare it with what an ordinary woman in active life should eat. You must remember that in this country this system of starvation is more general than in any other country. If you were to travel in England you would find no such bills of fare as this. The people there eat four or five meals a day, and of the most nutritious food, drinking a great deal of beer and wine.

Q. "What wine do you drink?"

A. "I do not take any stimulants whatever."

Now, the Americans, I think, have the misfortune of being the most temperate people in the world. The laboring classes do not take enough food and drink to sustain them in a condition of health. I am talking of a class, and not of the exceptions. The diet of American women, as a class, you will find is fairly illustrated in the case before you. You know we read of the rosy-cheeked, strong, and buxom country maiden, so frequently described by old English writers; but go into the farming districts in America, and do we find them? Not a bit of it. They live upon the same kind of fare as this patient, and in our country homes you will find women pale, lank, and showing absolute want of nourishment. Remember, I am not speaking as a reformer, but as a physician. If you want to cure these patients, you will have to commence in the kitchen, and make them eat more food, and of a more nutritious nature.

Unquestionably, one of the strongest points in favor of the "rest cure," introduced by Weir Mitchell, of Philadelphia, is, that these patients are fed every two hours. They all go there more or less starved; but, should one come there not in a starved condition, Dr. Mitchell would not submit them to this plan of treatment. One who is starved, immediately begins to improve under this course of treatment. But we have another element to consider in our present patient's case, and that is starvation due to loss of albuminous portions of the blood by this leucorrhœal discharge. I wish to impress upon your minds, that one of the most important elements of treatment here is to feed this woman properly. If her diet were changed, and she were to eat fresh meat three times a day, together with other food, and between these meals take a tumbler of fresh milk, thus making six meals a day, if she were given iron, bitter tonics, beer, and ale, in addition to all this, we would find our patient changed entirely for the better in one month. This system of feeding up is what improves patients largely in our well-regulated hospitals. Very often the improvement in hospital patients is considered by the attending physician as due to the administration of remedies which he has recommended, when in reality it is owing to improved nutrition. I have not time to go into details concerning the diet of these patients, but I have told you enough to make you think for yourselves.

We must stop this leucorrhœal discharge; but how are we to stop it? Look at this patient and tell her that she is suffering from anæmia or spanæmia, and put her upon iron, quinine, and good diet, and send her away, at the same time telling her to avoid all local treatment. That is all nonsense, as hundreds of medical men who are to-day talking in this ridiculous way to their patients, follow that plan, and this patient will never get well, for you are pouring water into the mouth of a hogshead and leaving a spigot open below. As long as you allow this constant leakage of the albuminous portions of the blood, your tonics and nourishing food will fail to effect a cure. Now, let me tell you the result of my examination. I placed the patient upon her back, passed my finger up the vagina, and at once discovered a polypus hanging from the mouth of the womb. Iron and quinine will not remove that polypus nearly as well as a pair of scissors. If that polypus were snipped off now with a pair of scissors, we would be removing the cause of the discharge. It is called a cervical polypus, and is attached at the os internum. I suppose that polypus has been there fifteen years, or at least for several years—that is, I think it highly probable, for the leucorrhœal discharge has existed fifteen years, and there is nothing else the matter with this woman's genital organs. If that polypus were removed, the leucorrhœa would be removed, and she would not lose so much of the albumen of the blood every day. This little mass is constantly moving like the clapper of a bell, and every time she gets up, every time she respires, it is rubbing against the endometrial wall. This polypus ought to be removed, and the patient ought to be treated in a general way. By so doing, I believe, as in the case which preceded, she might be entirely cured. You can scarcely believe that this is all that is the matter with the patient, nor can I; but I do believe it, just as you believe it. Very often the physician is inclined to overlook a little thing like this, just as the leper of old was inclined to overlook the river Jordan as a means of becoming purified.

As I was going to say, suppose I remove that polypus, and suppose I cure the leucorrhœa, then I will have accomplished what the patient desires, and afterward I can repair the damage which has been done her system, not only by this, but by diet and tonics.

Our next patient comes to us from a distance. Mrs. Caroline R——, a native of the United States, has been married nineteen years and borne nine children, and has had one miscarriage, which occurred at her last pregnancy, a year ago, since which time she has not been well.

Q. "What is the matter with you, madam?"

A. "For a year I have felt as if there was something wrong here in my left side."

She tells us that after her miscarriage a year ago, she had a flooding which prostrated her very much, and when she got up from this she lifted a heavy stove, and as she did so she felt something give way. To this she attributes the dragging sensation which she has experienced in her left side ever since. She says she feels very weak; that she has considerable pain, and that her bowels are constipated. You observe that this patient seems emaciated. She says she has been thin for several years, but never so much so as within the last year. Of course I at once proposed an examination, and found the vaginal canal bathed with leucorrhœa. You may say, do all these cases have leucorrhœa? Many of them do, but I have intentionally brought these cases before you to-day to impress upon your minds the fact that that condition which gives rise to leucorrhœa, and in consequence of which we have a flux of blood to the lining membrane of the uterus, can often be relieved by surgery. Upon examination, I found that the uterus had descended so as to project into the lower part of the vaginal canal, and this explains why she experiences a dragging sensation in her left side, but why it is confined to the left side I do not know; probably because one of the broad ligaments is more sensitive to pain than the other, but why more sensitive I do not know. But now, to go a little farther: passing my finger up to the cervix, I found it torn to a little extent upon one side, and the mucous lining everted. Leucorrhœal material was pouring out of the uterus itself; it was not at all vaginal. The patient is very uncomfortable, very much run down, and this constant leucorrhœal discharge is sapping her strength. I will not stop to go over her bill of fare, but, from my knowledge of these cases, I am willing to take it for granted that it is about the same as in the other instance. Looking at her face, one would say she is certainly not a well-nourished person. In regard to this symptom, which is constantly robbing the blood of important elements, put this patient upon iron, quinine, and a good diet, together with vaginal injections, and send her home. Three years hence, if you see and ask her how she is, she will tell you she is a good deal better, but you did not cure her of the whites, and why? Because you have not touched that part of her case at all. Now, as in the first case, where the cause of the continuance of the leucorrhœal discharge, that is, fungosities upon the endometrium, with subinvolution of the uterus, was different from the cause which prevailed in the second case, namely, a polypoid growth in the cervical canal, so in this case there is an entirely different cause from that in either of the preceding cases, and that is ectropion of the lining membrane of the organ. If you will absorb the idea that to be a good gynæcologist you must be something of a surgeon, and if in this case you will simply snip this ectropion on each side and

tion in the edges of the mucous membrane, you will cure this patient of leucorrhœa within two weeks after the operation, or certainly within four—not by any other treatment, but simply by removing the cause of the leucorrhœa, which, as I have already stated, is a slight laceration with retroflexion. But when this is removed, will the patient be well? Not by any means. The vagina is lax, the perineum is worthless and in a state of relaxation. The traction on the posterior wall of the vagina may be overcome by means of a pessary, and a great deal can be done by the use of astringent vaginal injections, thus keeping the vaginal walls contracted. But repair of the perineum will do more toward the cure of the case than anything else that could be done.

Our next patient is Miss Julia B——, who comes to our clinic to-day in company with her mother and aunt. She is a native of the United States, and is unmarried. She has been sick for six months.

Q. "Will you tell me whether you were in good health up to six months ago, miss?"

A. "Yes, sir, I was."

Q. "How have you complained during the last six months?"

A. "I have had a severe headache."

Q. "And how about your monthly sickness?"

A. "I have not had my periods for six months."

She tells us that she is troubled with backache and occasional rushes of blood to the head. She has also had the whites for a considerable time. Gentlemen, the case is before you; I will not add to the symptoms. Now, let us suppose you were in your office, not in the lecture-room of the College of Physicians and Surgeons, and just beginning practice, say next April or May. It is very important that you do full justice to all your cases, and equally important that you do justice to yourselves. The diagnosis here is very important, of course, and you have to be exceedingly careful to arrive at a correct one for many reasons. In the first place, you may, by not doing so, damage your patient, and in the second place, by not arriving at a correct diagnosis, you would fail to cure the patient now before you. When a patient with a history like this presents, of course certain thoughts pass through your mind. One would perhaps be, is this a case of amenorrhœa occurring in a young woman otherwise healthy—amenorrhœa from some unknown cause, perhaps from some nervous state; and this amenorrhœa would perfectly account for her symptoms—the rush of blood to her head and backache, which is increased in severity at those times when she ought to menstruate, etc.? Well, you may accept this theory, but be careful how you act upon it. I proposed a more thorough investigation in this case, and the patient at once consented to an examination into the condition of the pelvic organs. I discovered an abdominal enlargement extending up to the umbilicus. In some cases of amenorrhœa you will find abdominal enlargements, and these are most commonly in hysterical patients, and hysterical patients almost always have tympanitis; so there is nothing remarkable about the fact that an abdominal enlargement exists. I proceeded to investigate farther, and placed one hand upon the surface of the abdomen, and with the other percussed, expecting to get a drum-like sound, but I did not. The sound elicited was of something solid, and so I said to myself, this is not hysterical tympanitis, for there is no drum-like resonance. At once vaginal touch was practised, and the cervix discovered to be soft, with the os dilated. Now, other diagnoses presented themselves to view, and I began to feel that it was one of those cases in which a mistake would be particularly disadvantageous both to patient and physician. In your office it would be much easier to than here at a college clinic. Is there any way by which we can arrive at a certain diagnosis in the case? She has been amenorrhœic for six months, and the best way of arriving at a correct diagnosis under these circumstances is to place your finger upon the anterior wall of the uterus, just above the os internum, and push upward, and if you feel a round hard mass lifting itself up and dropping upon your finger, then you can be almost absolutely certain of your diagnosis, because there is only one other condition which gives you this, namely, abdominal dropsy, with a small fibroid rolling around in the abdominal cavity, which, when you press it up, rolls about and drops upon your finger. I have had two cases of this kind in my own experience. Cazeaux declares he has seen a case of an anteflexed uterus giving this sign. I have never seen such a case. Examination of the cervix revealed softness and enlargement of the canal, and, in addition, we have the usual mammary and gastric signs, and our diagnosis is complete. (Exit patient, mother, and aunt.)

I have tried to deal as much as possible in technical terms while speaking of this case, so as not to embarrass the patient, or her mother and aunt. The young woman is six months pregnant, and is just as innocent of the knowledge as you were when she came into the room, and she is still the same way, for all that I have said is as Hebrew to her, her mother, and aunt. I am as sure that there is a fœtus in the uterus of that young woman as I am that there are a certain number of gentlemen on the benches in this room, and that that fœtus is about six months old. Without expecting a confession, at my request, after the girl went out, Dr. Hunter told her that she was pregnant, and asked her if she had been exposed, to which she replied, yes. She is a *rara avis*, she tells the truth! You remember I told you you would have to be very careful how you announced your diagnosis in such a case as this. You are sitting in your office, and you are just about as sure of your diagnosis as I am of mine, and perhaps it is one of the first you have made, and on that account you are all the more anxious to announce it; but be careful how you do, for in all probability your patient will assume to get excessively angry, and denounce you as an unjust accuser; her father, mother, and all her relatives will do the same; they will take it as a matter of personal insult. They will do this when they know you are telling the truth. The girl will be spirited away for two months or so, and when she returns she will come back to you and will tell you that you made a horrible mistake, and nearly ruined the family; that she has been examined by other physicians, perhaps by some in your own town, who will rather be delighted with the opportunity of saying that she is not pregnant. This may be so now, but she was pregnant when you examined her. Beware of it! The case we have seen to-day is a rare exception to the general rule, for you will find ninety-nine women out of every hundred will swear to the very last that they know nothing of the matter. One of these cases came under my notice some years ago. I made a diagnosis of pregnancy in a young woman from the lower walks of life, but she declared that it was preposterous, that it was not possible for anything of the sort to exist, as she had not been exposed in any way. She was so violent in her assertions that I accused her falsely, that I felt it my duty

to defend my position. At my instigation she entered Bellevue Hospital, and when she was confined I was present and delivered her. When the child was born, and while yet attached to the placenta by the cord, I said to her, "Do you confess?" She replied, "No, I do not; you put that child there."

Now, gentlemen, as physicians you must protect yourselves as well as possible against the occurrence of such complications as I have just detailed. You may ask how is this to be done? It is a little difficult to answer; but I would say, if you are a beginner, and cannot stand upon your own merits in the case, it would be best, before announcing your diagnosis, to have a consultation, and commit some other man to the same diagnosis to which you have been committed. By so doing you will fortify yourself against attacks which would otherwise prove damaging to your professional reputation.

Original Communications.

TEA-TASTERS AND THE HEALTHFULNESS OF THEIR PURSUIT.

By C. L. DANA, A.M., M.D.,

NEW YORK.

A VERY interesting paper was read before the American Neurological Association last summer, by Dr. W. J. Morton, on the subject of the toxic effects of tea. In it he referred to the practice of tea-tasting by brokers and others engaged in the tea business. From an examination of the subject, he was led to the conclusion that the business was an unhealthy one, and that few could carry it on many years without breaking down. These statements were brought to the attention of a gentleman engaged in this pursuit, and were promptly and emphatically contradicted by him as entirely unfounded. I subsequently met a number of other tea-tasters, and they very courteously gave me their opinions and experience in the matter. These are detailed below.

Some facts may, in the first place, be given in regard to this practice of tea-tasting. There are, probably, more than a hundred firms engaged in it in this city. In all of their offices there are large tables with round, revolving tops. A circle of tea-cups is placed along the edge of these. The tea-taster sits down before the display of crockery and tastes one cup after another, moving the table-top around. In the centre of the table is a pair of scales with a silver half-dime in one of the balances. One or two large kettles are kept constantly with boiling water in them. When a sample of tea is to be tasted, as much is weighed out as will balance the half-dime. This is put in a tea-cup and the boiling water poured on. The tea-taster then stirs up the leaves, lifts them on his spoon and inhales the aroma. At the same time he generally takes a sip of the infusion, holds it in his mouth for a short time, and then spits it out. Enormous brass cuspadors, holding two or three gallons, receive the tea thus tasted and the contents of the cups that have been examined. On some occasions, when a large amount of tea of a certain kind is to be bought, many samples of this are brought in from different houses. The buyers and sellers sit around the revolving table with the samples made into infusions in the cups before them. These are tasted all around, the "body," fineness, "toastiness," etc., are learnedly discussed, and the poorer specimens discarded. Then those that are left are tasted again and the number further reduced. So it goes on until the article which unites the desired quality and price is obtained.

The skill displayed at these "drawings" is quite remarkable. A tea-taster will detect not only the quality of a tea as regards age, strength, flavor, fineness, etc., but he can tell in which of the numerous districts in China the tea was grown. The facts regarding the different samples are sometimes put on the bottom of the cups, where they cannot be seen. The cups are then mixed up, and the infusions tasted again and sorted out simply by their flavors.

A great deal of tea may be tasted before these tea-drawings are finished. It is hard to tell the amount that a tea-taster takes during a day, for it varies a great deal with the activity of business. Few of the gentlemen whom I asked could give any idea. Sometimes, however, as many as four or five hundred cups are tasted in the day. It is quite the custom to have to be tasting tea steadily for the most of the day, or for hours at a time. Probably an average of two hundred cups a day throughout the year is a low estimate. The poorer kinds of tea are often not sipped at all, but the sense of smell is depended on. Of the better qualities of tea, some is swallowed, and some spit out. Indeed, whenever the tea is taken into the mouth, a little of it is swallowed. The tea gets into the system, therefore, in three ways: by inhalation, by absorption through the oral mucous membrane, and by the stomach. More tea is simply taken into the mouth without swallowing than is inhaled alone; but all the tea is inhaled, even if it is tasted also. It is only a small proportion, amounting to not more than two or three cups a day, that is swallowed. A silver five-cent piece weighs 1.18 grms. (gr. xviii.). Estimating that an average of 200 cups of tea are tasted per day, about one-half of a pound would represent the whole amount used. If I remember correctly, one tea-taster informed Dr. Morton that he got about half a pound of tea into his system every day. This is too large an estimate. It is not likely that more than from one to two pints of the infusion are taken into the mouth during an average day's work. To this must be added the volatile oil which is inhaled and absorbed.

I will now briefly relate the cases which I have collected.

CASE I.—S. W. G., a gentleman about 60 years of age, has been a tea-taster continuously for 33 years. Tastes 300 or 400 cups a day; on "cargo" days much more. Has always been well; experiences no effects after tasting tea all day; did not feel any bad effects when he began in the business; in fact, he suffered from dyspepsia before he entered it, and after that the symptoms left him entirely. Is temperate; thinks that Japan tea affects the kidneys somewhat, causing increased flow of urine. Formosa teas sometimes do the same. Thinks that tea-tasters are, as a rule, healthier than men in other branches of trade.

When he began tea-tasting, it was the custom to chew the leaf; or to blow on it, and then smell the aroma which the moist breath developed.

CASE II.—J. S. C., age about 60, has been a tea-taster 38 years; is a strong, healthy-looking man; never has experienced any ill effects, either immediate or secondary, from his habits; uses tobacco. His other statements correspond with those of Case I.

CASE III.—B., age about 55, has been a tea-taster 35 years; is perfectly well; is temperate; uses to-

bacco. This and the succeeding cases agreed in their statements, except where specified, with Case I.

Case IV.—J. M., age about 60; has been a tea-taster 37 years; is perfectly well; uses alcohol and tobacco. Occasionally, after a long day's work, feels nervous, and thinks that sometimes he has been kept awake by the tea, otherwise he has never felt any bad effects from it. Drinks it at home.

Case V.—Brother of Case IV., age 73; has been a tea-taster 40 years; is still in excellent health.

Case VI.—This gentleman I did not see, but was told that when he began to taste tea he suffered for a time from dyspepsia and "sour stomach," but is now perfectly well. This case was that of a younger man.

Case VII.—J. O., age over 50, tea-taster 30 years, during that time he had a sunstroke, and suffered from after-effects. Has not been injured by tea-tasting, however, and is now in very good health.

Case VIII.—A. W——, Jr., age 30, tea-taster nine years; has been temperate and healthy; never experienced any effects from tea-tasting.

Case IX.—G. W. C——, age 35, tea-taster fifteen years; is strong and in good health; is temperate; uses tobacco; does not believe tea affects the flow of urine.

Case X.—W. T——, age 38, tea-taster seven years; healthy and temperate man; never experienced any effects from tea-tasting.

In all these cases the testimony was very strong as to the innocuousness of tea-tasting. It was the uniform opinion, also, from an extensive acquaintance with other persons in the trade, that the pursuit was a healthy one. The gentlemen whom I saw were all robust, well-looking men. They seemed, indeed, to be above the average of business men in many respects. There was a certain sallowness of skin among the older ones, which might, however, have been only a coincidence in livers. I heard of but one instance in which alcohol was ever used to excess, and in this case the excesses were rare and slight. Every one denied having dyspepsia, and one gentleman was, as stated above, even relieved of that disease after taking up the tea business.

With one exception, it was the uniformly stated opinion that Japan tea increased the flow of urine. Formosa tea was also said to do the same thing to a less extent. The other teas were thought to have no such effect.

In connection with this fact, it should be stated that Japan tea has of late years become by far the most popular variety, and more of it is imported than of all other kinds together. Green tea, on the other hand, is much less extensively used. This tea was stated to have no more effect upon the system of tea-tasters than black. I heard of two gentlemen who suffered from gravel, but they did not ascribe it to their tea-drinking.

The use of tobacco was quite universal, the tobacco being generally smoked. There is a difference of opinion as to whether the practice injures the taste.

Finally, it was admitted that tea-tasting, unless properly done, might prove injurious; if a person kept constantly swallowing large quantities of the hot infusion, he would experience bad effects. It was considered, very naturally, that the wisest plan was to taste tea without getting any more into the system than possible. If this plan were pursued with any reasonable judiciousness, no effects of any kind would be appreciated, even by a beginner, unless, of course, he had a certain natural susceptibility to the plant.

While I think that part of the rose-colored view of the business of tea-tasting is due to a certain *esprit du corps*, yet the evidence, even considering this, is very clear that tea-tasting, as carried on in this city, is as healthy as any branch of business—is, indeed, more healthy than some, such as that of dry-goods.

The question now is: How to reconcile this conclusion with the statements in regard to the toxic effects of tea? It seems to me that we can explain it in this way: the amount of tea actually taken into the system by tea-tasters is less than might be supposed, and the toxic effects of tea are less than would be inferred from some experiments and a good deal of current talk. A tea-broker takes into his mouth, approximately, an average of 0.70 c.c. (fl. ℥ xxi) of infusion of tea every day. This represents 8.26 grms. (gr. cxxix) of tea, which would contain, according to Roehleder, about 24 grm. (gr. iv) of *theïn*. This is a moderate dose of that drug every day. The drug, however, is taken at intervals, in small amounts, is a diuretic, and rapidly passes off. In addition, the volatile oil is to be considered; a great deal of this is inhaled, and it has, perhaps, a stimulant effect. It is taken in such small quantities, however, and passes off so rapidly, that one can readily understand why its effects are so inappreciable. Then there is a very insignificant amount of tannin taken—not more than that contained in the two or three cups of tea actually swallowed. Three gentlemen of whom I inquired had no constipation of the bowels.

Assuming, however, that I have made, as I think I have, a low estimate of the amount of tea gotten into the system, we must infer, since the system is not affected, that the active principles of an infusion of tea are very weak, and that large quantities are required to bring out their effects.

According to E. Peligot, there is from 2 to 4 per cent. of *theïn* in tea. G. J. Mulder makes it as low as .45 per cent. Assuming the amount to be 3 per cent., and that there are 2 grm. (gr. xxx.) of the leaf (a large estimate) in an ordinary cup, one would require to drink seven or eight cups in order to get a moderate dose (3 or 4 grm.) of *theïn*.

I am told that tea-tasters have sometimes drank fifteen or sixteen cups in succession, with a little bread, and have felt no effects. This may be due in part to their systems having become accustomed to the tea. It was uniformly stated, however, that no bad effects were felt when beginning in the business.

As regards the volatile oil, a great deal of this must be absorbed, although it constitutes but .5 per cent. of the tea. Tea-tasters get very much more of it proportionally than ordinary tea-drinkers. We must infer, then, since tea-tasters are healthy, that the volatile oil is a very weak agent.

It has been stated by Dr. Wolfe, of Glasgow, in a paper read before the British Medical Association last summer, that tea-drinking produces a bad effect upon the nutrition of the eyeball. This was shown by a softening of the vitreous humor, which became more or less filled with floating particles of pigment, these opacities finally seriously impairing vision. He had found the disease among all classes of persons, with nothing in common, so far as he could discover, except the habit of drinking large quantities of tea. Dr. Wolfe discovered also, that a larger number of cases of opacity of the vitreous humor occurred among the tea-drinking population of England and Scotland, than in France, Germany, and especially in Turkey, where tea is less used as a beverage. He admits that it is difficult to explain the *modus ope-*

randi in these cases, but considers it possible that the tannic acid, by precipitating the albuminoids of food, might impair digestion, lower the general tone of the system, and produce an irritation of the nutritive centres that might lead to various morbid changes, according to the predisposition of the person.

In the cases examined by myself, the eyesight was uniformly good, even in those who had tasted tea for years. Complaints of weak vision had not been noticed among their friends in the trade by those whom I questioned. It is very unlikely that Dr. Wolfe's theory has any basis in fact. Considering the immense consumption of tea, however, the subject is an important one, and further data should be collected.

I am aware that some of the calculations here given are only approximately correct. The facts at the bottom, however, are well established, and the conclusions are in accordance with practical experience.

At any rate, whatever theory be taken to explain the matter (and I believe the tea-tasters will think I do not credit them with tea enough), the fact that tea-tasting is a healthful pursuit seems to me to be indisputable.

MEDICINAL SPRING WATERS.

By JOHN C. PETERS, M.D.,

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III.

In this article we will sift some of the pretensions of famous medicinal spring-waters. The Heilbrun, or *healing spring waters* of Bavaria, are regarded as powerfully alterative and tonic, and said to be useful in scrofula, strumous affections of the skin, rheumatism and gout, and for female complaints. The principal ingredients are 38 grains of table-salt and 6 grains of carbonate of soda in 16 ounces of water, $\frac{1}{4}$ grain of grain of iodide of soda and $\frac{1}{3}$ grain of bromide of soda, both in a latent state, with $\frac{1}{10}$ of a grain of carbonate of iron. If the same cheering and pleasant influences could be centred around two tumblers of water, with $\frac{1}{2}$ drachm of table-salt in it, and a pinch of carbonate of soda, doubtless all the cures which have been effected by these so-called wonderful waters could be accomplished at home, or in any pleasant country-place. The Aix-la-Chapelle waters have been celebrated since the time of Charlemagne. The four springs have from 18 to 20 grains each of table-salt in 16 ounces of water, 3 to 4 grains of carbonate of soda, 2 grains of sulphate of soda or Glauber salts, 1 grain of sulphate of potash, 1 grain of carbonate of lime, $\frac{3}{10}$ of a grain of bromide of soda, and $\frac{4}{10}$ of a grain of iodide of soda, both in a latent state, $\frac{1}{10}$ of a grain of carbonate of lithia, etc. Of course they are said to be good for cutaneous diseases, stiffness of the joints, paralysis, obstruction of the liver, and especially for syphilis.

Aix-les-Bains, in Savoy, is celebrated for rheumatism, gout, sciatica, and eczema. The principal ingredient is 1 grain of carbonate of lime in 16 ounces of water, and traces of a dozen other things, especially $\frac{1}{10}$ of a grain of fluoride of calcium and carbonate of strontia.

The Barrèges waters, in the Pyrenees, France, are used for inveterate chronic rheumatism and skin diseases; yet not one of its ingredients is present in the proportion of 1 grain in 16 ounces of water; it only has $\frac{3}{10}$ of a grain each of sulphuret and sulphate of soda, the same of table-salt, $\frac{1}{2}$ grain of silica or flint, $\frac{1}{3}$ of a grain of lime, and the same huge quantity of magnesia and soda.

Carlsbad, in Bohemia, is relied upon in obstinate constipation, affections of the liver, gout, and diabetes. The principal ingredient of the three springs is from 10 to exactly 19 grains of Glauber salts in 16 ounces of water; the next is from 8 to 9 grains of carbonate of soda; the third, precisely 8 grains of table-salt, 2 grains of carbonate of lime, and 1 grain of flint, in solution, 1 grain of fluoride of sodium and silicum, also $\frac{3}{10}$ of a grain of iron, $\frac{8}{10}$ of a grain of phosphate of alumina or clay. Yet many good Americans take long voyages and travels to these wonderful waters.

Ems, in Germany, said to be most useful in diseases of the mucous membranes and uterine derangements, especially in barrenness, sluggish liver, and irritative dyspepsia. The principal ingredient in all four springs is 14 or 15 grains of carbonate of soda in 16 ounces of water; the next, 7 grains of table-salt, then 1 grain each of bicarbonate of lime and magnesia, and finally $\frac{1}{10}$ of a grain each of baryta and strontia. That is about $\frac{1}{4}$ of a teaspoonful of soda in two tumblers of water and $\frac{1}{2}$ of a teaspoonful of table-salt.

Fachingen, near Ems, is said to be highly useful in diseases of the kidneys and bladder, and in acidity of the stomach. The principal ingredients are 28 grains of bicarbonate of soda in two tumblerfuls of water, 4 grains of table-salt, and 2 grains each of bicarbonate of lime and magnesia.

Franzensbad, in Bohemia, is gravely pronounced not only useful, but highly successful in all forms of abdominal plethora, and also in anæmia and chlorosis. Of course, the principal component in the five wonderfully different springs, is 17 to 26 grains of Glauber salts in each 16 ounces water, with 9 grains of table-salt, 1 grain each of carbonate of lime and magnesia, $\frac{3}{10}$ of a grain of iron, $\frac{1}{4}$ grain of carbonate of strontia, and a dozen other infinitesimal trifles. It is considered very important to remember that the springs, named after the Emperor Francis and the Empress Louisa, have from 5 to 7 grains of carbonate of soda in each two half-pint tumblers of the water.

The Friedrichshall Bitter water, in Saxony, is moderately active, alterative, and aperient, and considered useful generally in almost all diseases of the stomach, liver, and urinary organs. Epsom salts and Glauber salts are the great constituents, appearing in the quantity of 47 grains, or nearly a very small drachm of the former in each 16 ounces of water, and 40 grains of the latter, or from $2\frac{1}{2}$ to 3 grains in each ounce of the wonderful water; but then there are also 60 grains of table-salt, and 30 grains of muriate of magnesia and 10 grains of sulphate of lime in each two tumblerfuls of water, or little over $\frac{1}{2}$ grain in each ounce; but then $\frac{1}{4}$ of a grain of bromide of magnesia, in a latent state, in each pint of water, must not be forgotten.

The Gastein waters, in Austria, are decreed to be especially useful in nervous exhaustion, or neuroasthenia. It has 1 whole grain of Glauber salts in 16 ounces of water, and not a single other ingredient which comes up to that mark; but it has exactly $\frac{8}{10}$ of a grain each of table-salt and chloride of lime, $\frac{4}{10}$ of a grain of soda, and especially of the phosphate of alumina, with $\frac{1}{4}$ grain of carbonate of iron to each pint of water, with much smaller traces of fluoride of calcium and strontia.

The widely celebrated Homburg waters, one of which is called the Emperor's, or Imperial, others after Duke Ludwig and Duchess Elizabeth, have from 48 to 105 grains of table-salt in each pint of

water from 5 to 10 grains of carbonate of lime, 4 to 10 grains of muriate of magnesia—but the celebrated Steel or Iron spring has in addition 3/4 of a grain of carbonate of iron to each pint of water, while the others have only 1/4, or 1/2, or at the most 1/3 of a grain to each 16 ounces of water. We should not doubt, as the air of this place is found to be both pure and bracing, and everything that is pleasant and gay in life is furnished in this most fashionable place of resort, that the waters are especially good in hysteria and hypochondria—even in plethora, if one walks and dances enough—and in dyspepsia. They are also very, very slightly laxative, and very, very wonderfully tonic, without being overheating.

Kissingen has four mineral springs, the one supplying the *Kissinger Ritter*, which closely resembles Friedrichshall waters, in its proportions of Epsom and Glauber salts. But the principal ingredient of the other three is table-salt, of which the renowned Rakoczi water has 14 grains in each pint, then come 8 grains of carbonate of lime, and 4 grains of Epsom salts. These waters are said to give tone to the liver and kidneys, because they have about 1/2 grain of iron in each 16 ounces of water, and 2 whole grains each of chloride of potash and chloride of magnesium. It is also respectfully requested that the 1/2 grain of chloride of lithium in each two tumblerfuls be not forgotten. It is evident that it will take a great deal of these waters to produce a laxative effect, and how many gallons may be required to remove obstructions of the liver and morbid conditions of the kidneys we are unable to say; but very weak lime-water, with a little table-salt in it, aided by 4 entire grains of Epsom salts in each pint, and the whole complemented by the equally mild, dry, and salubrious climate which distinguishes this place, which is also justly said to be a pleasing and healthful place of residence, will accomplish all that the waters will.

(To be continued.)

A CASE OF
VALVULAR DISEASE OF THE HEART IN A CHILD,

Followed by Singular Motor Phenomena.

By TALBOT JONES, M.D.,

ST. PAUL, MINN.

Double valvular disease of the heart in children, congenital, and not depending for its causation upon acute rheumatism, is a sufficiently rare disease to possibly make interesting the brief report of a case which lately fell under my observation near this city. Some time during last winter, Mr. and Mrs. G., residing at Oakdale Station, distant some eight miles, brought to my office their child for examination. I found Lizzie G. a fragile little girl, with blue eyes and golden hair. She was four years old, and appeared to have been delicate from her birth. The father, a well-to-do farmer, was the picture of health; the mother, too, enjoyed fair health, though of rather a delicate appearance. Their object in seeking medical advice was to ascertain the present condition of their child, and learn what complaint it was now laboring under. Questioning them, I learned that the child had occasional attacks of dyspnœa, especially after some unusual exertion; at such times having more or less palpitation of the heart, was restless, uneasy, had a dry cough, sometimes had difficulty of breathing, coupled with stoop, often awakening in great alarm, owing to some frightful dream. Occasional epistaxis. There was no history of former rheumatism or scarlet fever. Neither father nor mother had ever suffered from heart disease. The child's face was pale and her lips bloodless; she was anæmic, and the number of respirations were increased. Physical examination revealed the apex-beat of the heart in the sixth intercostal space, and displaced laterally and to the left. Impulse strong and heart beating tumultuously. With the stethoscope properly placed, endocardial murmurs were heard, but the heart's action was so rapid and violent that it was quite impossible to determine the seat of the lesions. Administering digitalis, to slow and quiet the heart's action, I made the second examination some six or eight hours later.

The lesions could not be located, there were present two distinct murmurs. Just over the apex, and transmitted laterally toward the lower angle of the scapula, a loud murmur could be heard with each ventricular systole—a mitral regurgitant murmur. In addition to this, and also over the apex, but limited to this location, there was a presystolic murmur heard, which was abruptly arrested with the first sound of the heart—a mitral obstructive murmur. Lungs perfectly normal. I gave the parents a very unfavorable prognosis, remarking that the chances were greatly against the child reaching maturity. I prescribed a tonic of iron and strychnia; gave directions with regard to diet, exercise, and cautioned the parents against allowing our little patient to become excited, or to exert herself too violently.

I did not see the case again for some two or three months, when, one day, I was summoned out, in great haste, and found the child in a paroxysm of dyspnœa and almost cyanotic. This attack was brought on by over-exertion, and a neglect to continue the treatment I had advised. I remained till the child recovered from the attack, and again left directions for subsequent treatment. This was the last I saw of the little girl for about five months. In the meantime the case had almost fallen out of my mind. I was ignorant whether the child was better, had fallen under the charge of some other physician, or was dead.

However, at midnight, on October 10th, I was again hastily summoned to see our little patient. The messenger declared the child was in a desperate condition, and urged me to lose no time in reaching the bedside. I found his fears only too well grounded: a mere glance showed me that the child was moribund. Questioning the parents about the present paroxysm, I ascertained that the child had greatly improved in general health since I last saw her. The attacks of giddiness and palpitation did not occur nearly so often as formerly; her appetite was fair, and her health in every way improved. This last attack was due to the child having unduly exerted herself while at play the day before. She was suddenly attacked with violent palpitation; experienced great cardiac oppression; was giddy; and soon became cyanotic, and was in this condition when I reached her at night.

Upon examination I found the heart was beating very rapidly and irregularly, though its impulse was not nearly so strong as when I examined it five months before. This led me to believe that the former predominant hypertrophy was now, in turn, succeeded by dilatation. The true explanation of the weakened impulse, however, may have been that there was fluid present in the pericardium, as a result of pericarditis. Another factor may have been the

weakness due to approaching dissolution. The child's face was pale and bathed in perspiration. There was no œdema or dropsy present, nor had there been at any time. With the ear over the præcordia the same murmurs were heard which had originally given rise to the unfavorable prognosis. The breathing was rapid, and the child in a comatose state. There was the normal vesicular resonance on percussion over the lungs, but the area of præcordial dulness was increased, extending downward below the sixth rib, and laterally considerably beyond the normal location. This fact, taken in connection with the fever present, as well as the previous history of the case, led me to believe that I now had to deal with endo- and pericarditis as a complication of the valvular disease. I must say, however, that after a careful search for a friction or rubbing "to-and-fro" sound, I failed to discover one. The most interesting and singular symptom observed in this case was the convulsive twitchings of the right side of the body and face, which movements recurred at intervals of some three or four seconds. These convulsive movements of the side were quite strong—the leg being drawn up with considerable force. At the same time the arm, especially at the elbow, was raised from the bed. Coincident with this, the muscles of the face, on the corresponding side of the body, were drawn in violent and fitful contractions, resembling the twitchings which would be produced by a galvanic current. Death took place an hour or two later.

Little, of course, could be done by way of treatment. The tincture of digitalis was given, but the heart would not respond to the remedy. Counter-irritation over the precordia was employed, and this constituted the treatment. An autopsy was not granted. I have been led to record this case chiefly on account of the singular phenomena observed in connection with the unilateral twitching of the body, which was so marked a feature in the case. A satisfactory explanation for this has not yet occurred to me. The practical question is what caused these convulsive movements of the right side of the body, in this, a case of valvular disease of the heart? Was it due to some regurgitation or fibrinous concretion having been swept off the mitral valve, carried thence as an embolus to the motor tract of the brain, and there gave rise to these unilateral twitchings? It will be objected that embolism, just as apoplexy, gives rise to paralysis and not exaggeration of motion. In the vast majority of cases this is true, but it is equally true, as Dr. Hughlings Jackson has fairly shown, that chorea minor is occasionally the result of embolism of a cerebral vessel supplying the corpus striatum and neighboring convolutions. Now, if embolism can give rise to the exaggerated motor disturbances of chorea, why may it not be a rational explanation of the exaggerated motor disturbances observed in this case of heart disease. The proneness of embolism to occur in cases of valvular disease of the heart, it will only be necessary to mention.

Again, some one may suggest, as a satisfactory explanation of these remarkable phenomena, that the movements in question were dependent upon metastatic inflammation in the brain due to an embolic plug. But the fatal objection to this explanation is that, granting that localized inflammation of the brain may give rise to motor disturbances of the body, still in this case the onset was too sudden, and the interval between the first manifestation of these twitchings and the fatal close was too brief, for it to be chargeable to localized inflammation in the brain. If the motor disturbances observed were due to ordinary convulsions, which in children precede death in such a variety of diseases, the case, for this fact, is by no means robbed of its interest. The question is still a pertinent one: Why did the convulsions affect but one side of the body? Again, are not infantile convulsions, as a rule, bilateral, and not, as in this case, unilateral.

The mode of the seizures, together with the previous history of the case, fully justified me in excluding reflex causes due to peripheral irritation, such, for example, as worms, teething, constipation, etc. Assuming, then, that the cause was central, the question arises, will ordinary infantile convulsions explain the motor phenomena observed in the case?

Convulsions in children, in the great majority of cases, continue from a few minutes to an hour or two—rarely longer than four hours. With these facts in view, I think a physician would be almost reckless of his opinion who would give it as his belief that the motor disturbances were due to ordinary infantile convulsions. Finally, when we again ask the explanation of the exaggerated unilateral movements, it but brings us back to our original starting-point.

We have given several possible explanations only to expose their error.

The true cause is with certainty not known, though I feel that that which supposes them due to embolism of one of the vessels supplying the motor centres of the brain, offers the most reasonable explanation of the motor phenomena in this, a case of valvular disease of the heart.

LUGOL'S SOLUTION AND TANNIC ACID:

A Local Application in Diphtheria.

By D. McFALLS, M.D.,

PARK CITY, UTAH.

As diphtheria is now prevailing to a fearful extent in many localities throughout this country and in Europe, it seems to me that the discovery or the use of any means, either local or general, that afford relief in this grave disease, ought at once, or as soon as those remedies are sufficiently tested, be made known to the profession.

I have had an extensive experience in the treatment of diphtheria in both hospital and private practice since 1860, and have employed the various gargles and washes recommended by different authors and practitioners of medicine, including steaming, with varying results; but more recently I have made use of Lugol's solution, thickened with tannic acid to the consistence of thin cream, with better effects than any of the others heretofore in use. This mixture should be employed early in the disease, when the coating first makes its appearance. The tonsils, on which the exudation is usually first seen, should be well painted over, using for this purpose a large-sized camel's-hair brush, or a swab made of old linen. If this medicine is used at this time, even when the tonsils are considerably swollen and much inflamed, I have seen it often prevent the formation of the coating, and thus the disease has been apparently cut short or aborted. When the patient is not seen until the coating is quite extensive over one or both tonsils, or the back part of the throat, as is too often the case, the mixture should still be applied, not only over the exudation, but the parts adjacent to it

should be painted over as far as can be reached without difficulty.

Soon after the application of this mixture the coating will be seen to have contracted or wrinkled, and will come away without bleeding, leaving the parts quite healthy, and without those deep, irritable ulcers that are almost invariably seen when the coating is allowed to remain until suppuration has taken place. Not only this, but the swelling of the tonsils and the glandular enlargements about the neck will be diminished.

I first commenced the use of this mixture by noticing its beneficial effects in tonsillitis and in erysipelas, as well as in some other local inflammations. Still, notwithstanding the benefits derived from the use of this remedy, I do not rely entirely upon this or any other local treatment for the cure of the disease. If the disease is local at the beginning, according to Oertel, then this local treatment, early employed, is certainly indicated; for there are no remedies yet discovered, I believe, that will destroy those microcci which are said to be the cause of this disease, or prevent their rapid reproduction, when brought into immediate contact with them, as iodine and tannic acid. If, on the other hand, the disease is at first constitutional, as is claimed by many, and the throat difficulty is only a local expression of the general disease, then any means or remedies that will control the amount and spread of this exudation into the trachea and air-passages will be, to a very great extent, beneficial. The frequency of the application of this remedy depends entirely upon circumstances and in what stage of the disease the patient is first seen. If the coating in the throat has become very thick and firm, the mixture should be applied *three* or more times in the twenty-four hours; and whenever any new patches of coating appears, these patches should be touched as soon as they show themselves. Should the throat become sore, and deglutition is attended with pain, then a solution of carbolic acid may be applied with benefit—more, however, as a local anæsthetic than for any other purpose.

I have been in the habit of using cold compresses externally for the first three or four days. A cloth should be folded five or six thicknesses, of sufficient length to reach from one ear to the other; this should be wrung out of cold water and applied; over this a handkerchief tied upon the top of the head. In severe cases this should be changed every ten or fifteen minutes, or as often as it gets warm.

As to constitutional treatment, tincture of ferrichlorate of potassa, quinine, and stimulants are principally relied upon. I use a strong solution of chlorate of potassium and the tincture of iron, mixed together in simple syrup. Of this, in severe cases, a teaspoonful is given every half-hour, and every hour in more moderate cases; the quinine every four hours, and the whiskey in liberal quantities. Emetics and cathartics should not be given, even at the commencement of the disease. I have used steaming *most thoroughly*, as recommended by Oertel, both before and after the membrane had extended into the trachea, but with no benefit. I have saved quite a number of patients, after the croupal cough came on, by the use of zinc emetics, and by keeping them alive, as it were, until the coating became detached and was coughed up. When the dyspnœa is very great and returns at intervals, much relief may be given by the use of bromide of potassium. I have no confidence in tracheotomy in this disease. Those who recover after the operation would undoubtedly have lived if the operation had not been performed.

Reports of Hospitals.

THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

(Reported for THE MEDICAL RECORD.)

TYPHOID FEVER COMPLICATED BY SWELLING OF THE PAROTID GLAND.

THE case was one of typhoid fever, unmarked, at first, by any peculiarity, except that the attack had been one of unusual severity. The temperature was as high as 105 at times, and there had been a great deal of muttering delirium. There had also been a little more diarrhœa than is customary.

On December 28, 1879, convalescence had set in, the temperature being 99°. On January 1st the temperature was still lower, the thermometer in the axilla marking only 97½°. The diet was increased, and the diarrhœa began to be replaced by constipation. This constipation was so marked that the bowels had to be evacuated by means of a cathartic.

On January 11, 1880, with but slight increase of temperature, the patient began to complain of stiffness, swelling, and pain at the angle of the left lower jaw. This stiffness and swelling increased in spite of the free local application of iodine. Thirty-six hours after the swelling was first noticed the patient's temperature began to show an inclination to rise. 100° was reached, but the fever stopped there and again ran down, until, on January 16th, it was the same as the record of the first convalescence showed. On January 17th it was 98°.

For a few days after January 11th the swelling persisted; there seemed to be less stiffness and pain, but this improvement was only temporary, for on the 17th it again increased. This stiffness was accompanied by hardness and swelling, not only of the parotid gland, but also of the surrounding tissue. The tension extended all over the cheek; the patient could not open his mouth or swallow without pain.

The glands lower down in the neck, and the submaxillary gland, were not affected.

In considering the case, attention was called to the very great rarity of this complication of typhoid fever, emphasis being laid on the fact that Trousseau and Chomal had each only recorded *one*, Murchison in his enormous experience of typhoid fever only *six*, and Da Costa only *three* cases.

It was thought that the presence of parotid swelling, as a complication of enteric fever, suggested several questions: How such a complication arises, what it means; how it modifies the prognosis, how it should be treated.

Before proceeding to discuss these points it was stated that parotid swelling was quite a frequent complication of typhus fever; that in the typhus fever epidemic of 1870 at least four of the cases of typhus in the wards of the hospital had parotid swelling.

It was thought that the complication did not differ materially as occurring in typhus and typhoid fever, but that the tendency of the swollen parotid to suppurate was greater in typhoid fever.

With regard to the stage of typhoid fever at which this complication arises, the belief was expressed that it was generally when convalescence has set in.

It was considered a dangerous complication, although it was allowed that there was a curious diversity of opinion with regard to this point among clinicians, some believing it to be a favorable, and others an unfavorable phenomenon.

The opinion that it is an unfavorable complication was based upon the danger of death: (1) from pressure upon the trachea; (2) from the discharge of pus into the air-passages; (3) from general septic poisoning.

It was believed that the swelling of the parotid was an indication of the profound blood-poison. As it occurs after convalescence has set in, it was thought to show that the poison was still in the system, and that it had located itself in the parotid gland.

Unless an early incision is practised, it was further shown that there was danger of purulent infection. The swelling may subside slowly, or it may persist, and when it thus persists it shows that the impression made upon the system by the blood-poisoning has been very profound.

The following treatment was pursued. The spot was painted with iodine, but as no good seemed to come of this treatment, ice was applied steadily in bladders. This was found to relieve the tension, heat, and swelling, so that for a few days it seemed as if the swelling had entirely yielded to the ice; but it soon returned. It was determined to still apply the ice steadily, and thus to try and prevent the occurrence of suppuration; but, if suppuration took place in spite of the ice, it was thought that the ice-bag should be at once removed, and that suppuration should be favored by the application of a poultice, and that the pus should be let out by an early incision. It was thought that a blister might be applied with advantage after the ice had been persevered in for several days.

The medicinal treatment employed consisted in the administration of gtt. xx. of the tincture of the chloride of iron every three hours, together with gr. xij. of quinia and f. ʒiv. of whiskey each day.

It was thought that at a later stage some alterative, such as the iodide of potassium or Lugol's solution, given internally, would be of advantage.

SOME POINTS OF INTEREST WITH REGARD TO THE COMPLICATIONS OF ACUTE ERYSIPELAS.

Some years ago an eminent French observer made the statement that endocarditis is the rule in erysipelas, and based his opinion upon the fact that a cardiac murmur is always present in the disease. These observations have been repeated at the Pennsylvania Hospital, and it has been conclusively shown that endocarditis in erysipelas is wholly exceptional, and bears no such relation, in point of frequency, as the French observer concluded. In the larger proportion of cases of erysipelas at the Pennsylvania Hospital, as the disease is declining, or it may be just at the height of the attack, a short, soft systolic murmur, which is not the result of an endocarditis, but is just such a blood-murmur as is met with in typhoid fever, has been found to be present; but this is a passing murmur, is unaccompanied by any signs of a disordered circulation, and never continues after convalescence is established.

With regard to the presence of albumen in the urine, investigations made at the same hospital some years ago demonstrated conclusively that, in all cases of erysipelas of any severity, albumen is present in the urine, and that its presence is a phenomenon which belongs to the disease. It has also been proven that the albumen is generally to be found in the urine when the disease is at its height. This albuminuria is not, as a rule, associated with epithelial casts, since they are few and scanty.

These observations have further shown that the following valuable prognostic indications can be obtained from the presence of albumen in the urine in this disease, and from its amount: (1) When albumen appears in the urine, it may be taken for granted that the morbid process has reached its height; (2) when the amount of albumen in the urine is large, the attack is likely to be graver and more protracted, and a relapse is more likely to happen; (3) the presence of albumen in the urine teaches the physician to look out for the kidneys in the course of the disease, for if they are allowed to become clogged, impurity of blood may be added to the erysipelatous inflammation.

BELLADONNA IN CONSTIPATION.

Very good results have been obtained in cases of obstinate constipation by the administration of f. ʒ j. of sweet oil at bedtime, and gtt. i. of the fluid extract of belladonna, thrice daily after meals, in f. ʒ j. of Huxham's tincture.

Progress of Medical Science.

IMPULSE OF HEART IN ANÆSTHESIA.—The following are the conclusions of Dr. John W. Corson in a paper read before the Essex County Medical Society, New Jersey, April, 1879, entitled "Impulse of the Heart in Anæsthesia."

1. Where structural changes of the heart are clearly evident, *chloroform should never be used.*

2. In the "more favorable class," *ether alone may* be gradually and very *cautiously* administered.

3. Where there is fear of "*sudden death*," either from "aortic regurgitation," so liable to this, or from that obscure disease, "fatty heart," *no anæsthetic should be used.*

4. Whenever, either in organic changes or "functional affections" of the heart, the *impulse* has been decidedly *weakened*, only *ether* should be *sparingly* administered.

5. Statistics are noted, showing in round numbers the deaths from chloroform to be about one to three thousand administrations, and those from ether to be one in twenty-four thousand; or eight from chloroform to one from ether.

The "inhaler" of Dr. Allis is strongly commended. It is convenient for chloroform, and especially useful in making ether more pleasant and *manageable.*

6. *The impulse of the heart* can be most conveniently *tested* delicately by the *ear.* The patient should be placed in a sitting position, but leaning a little forward, so as to let the apex strike well against the ribs, while the chest inclines over the head of the physician. We thus feel the impulse, and catch the "first" sound at the same moment.

If the impulse seems weak, it can be made more distinct by asking the patient to walk hurriedly round the room or up a pair of stairs, and then listen quickly after. We thus also bring out the faintest valvular murmur, if any exists. With any "suspected heart," it is always best, before using chloroform or ether, to further test its strength by these two questions, asked very quietly. 1. On hurrying a little up a second pair of stairs, is there actual distress? 2. Is the patient subject to fainting readily?

7. The writer urges the most ample preparations for *every case of anæsthesia*. All known safeguards should be adopted. The best position for the physician who administers is *sitting on a chair*, close to the head of the patient lying beside him, with the fingers of the left hand on the pulse at the wrist, with his eye watching the heaving chest and livid face, while the fingers of the right hand are free *to test* the sensitive conjunctiva.

The ventilation should be perfect. In addition to other openings, a piece of muslin, *ten inches wide*, can be tacked inside a lower windowsash, raised *six inches*, to send a current of air to the ceiling, to be warmed before using, and to *sweep away* the impure *cloud of chloroform or ether above*.

There should be the usual four hours of fasting previously from *usual food*. In cold weather, extra socks and drawers are needed, and the temperature of the room should not fall below sixty-five degrees. With the very nervous or feeble, it is a useful preparation to give an ounce of brandy or whiskey in water.

Of the greatest importance, for safety, is the horizontal position. We should ever be ready to use Nélaton's brilliant device of hanging the head *very low*, in case of *danger*. Two implements to save should be lying ready for use. These are a pair of artery forceps, or a hook, to pull forward the tongue in case of *deep stertorous breathing;* and a faradic battery, to rouse the failing heart, in case of need. We should also be prepared, in emergency, to use artificial respiration. The writer is in favor of the *gradual administration* both of ether and chloroform. *Where there is so much at stake, it is better to err on the side of caution.*

Tubercular Leprosy.—An interesting case of tubercular leprosy is reported by Dr. Hyde, Professor of Dermatology at the Rush Medical College. The patient is a native of Sweden, forty-three years of age. There is no evidence that any of his ancestors suffered from the disease, but two of his brothers died from a similar affection, and the account given of his little daughter (who was left at home in Nebraska, and did not come under the personal observation of Dr. Hyde) makes it probable that she is also suffering from the same affection. If this supposition is correct, it is the first recorded case of inherited leprosy occurring in the United States. The patient was given internally an emulsion of chaulmoogra oil, and an ointment of one part of oil to four of lard was applied externally. This oil is obtained by expression from the leaves of the gynocardia odorata, and, according to Dr. Wyndham Cottle, can be given in doses of five minims, gradually increased daily. It has lately been recommended very highly in the treatment of leprosy, although some observers have failed to obtain from it satisfactory results. One month after the commencement of treatment, the patient wrote that he was feeling a great deal better, his voice was becoming clearer, the tubercles decreasing in size, and the normal sensitiveness returning to the lower extremities. He further stated that his daughter, who is taking the oil in one-minim doses, and using external inunction, exhibits an equally marked improvement, the tubercles diminishing in size upon her extremities.—*The Chicago Medical Journal and Examiner*, December, 1879.

Stroma of the Red Globules.—In the course of his studies on the evolution of the red globules, M. Hayem noticed that when a thin layer of dried blood on a glass slide is treated with distilled water, the water does not dissolve the globules, but simply withdraws from them the hemoglobin. He has recently made use of this fact to study the nature of that part of the globule to which German authors have given the name of the *stroma*. He spread thin layers of blood on glass slides, let them dry in the open air, and on examining them with the microscope found the red globules arranged in rouleaux as in humid preparations. The diameter of the elements was measured, and a stream of distilled water was then made to flow gently over each preparation. The water extracted the hemoglobin, while the decolorized globules remained attached to the glass and retained their arrangement in rouleaux. The distilled water was then replaced by an iodized solution, and it was found that none of the marked globules had disappeared. They were reduced to a delicate pellicle, tinged yellow by the iodine, and bounded by a double contour. By measuring the elements before they were detached from the glass, he ascertained that they had preserved very exactly their original dimensions. There was nothing left of the red globules but this delicate envelope; even with the highest powers no detail of structure could be discovered, neither filaments, nor granulations, nor nucleus. This method of preparation, which succeeds as well with the blood of animals, either viviparous or oviparous, as with human blood, demonstrates, according to M. Hayem, that the assumed stroma of the globule is only a delicate pellicle of proteic matter, insoluble in water, which evidently forms the external layer of the globule, since its dimensions are the same as those of the colored corpuscle.

In these preparations of dried blood, the hematoblasts, whenever they were fixed to the glass without alteration, acted like the red corpuscles, presenting the same persistent, exterior pellicle. Instead of the iodized solution, the alcoholic solution of rosaniline or of eosine can be employed as a coloring reagent. *Gazette Médicale de Paris*, November 1, 1879.

Two Cases of Extirpation of the Kidney.—Prof. Czerny, of Heidelberg, reports two cases of extirpation of the kidney, of which one terminated favorably. The first case was one of cancer of the kidney, the tumor filling the entire left half of the abdomen. The operation was undertaken at the request of the patient, after its dangers had been fully explained to him. The incision was made in the linea alba, and the mesocolon descendens was divided over the tumor. As the operation proceeded, it was found that the cancerous mass had perforated the capsule and the inner layer of the mesocolon. The hemorrhage was very profuse, and could only be controlled by compression of the aorta; it finally became necessary to ligate the aorta. The patient died ten hours after the operation. The second case was one of pyonephrosis, with fistulous opening under the eleventh rib. When the discharge from the fistula was free, the urine passed by the patient was clear; but when the fistula ceased discharging, the urine was thickly loaded with pus, and was passed with severe pain. In this case the extra-peritoneal operation was chosen; the incision being made along the anterior border of the quadratus lumborum, and involving the sinus. To obtain more room, 9 cm. of the eleventh rib were resected subperiosteally. The entire hand could then be passed into the wound, and the kidney, which was enlarged to three times its usual size, was easily separated and drawn out. The pedicle was secured with silk and elastic ligatures, and the kidney was cut off at the hilus. The wound was

washed out with a five per cent. solution of chloride of zinc, and tamponed with thymol gauze, and the external incision, which was about 20 ctms. in length, was then closed with sutures to about half its extent. The patient did remarkably well after the operation; she had very little fever during the entire course of her convalescence. The ligatures with the necrotic pedicle came away on the twenty-third day, and two days afterward the patient was out of bed. Two weeks later she left the hospital, and it is stated that she has since become pregnant.

Prof. Czerny believes that both methods of nephrotomy, the extra-peritoneal and the intra-peritoneal, are legitimate, but that the latter is, *ceteris paribus*, the less dangerous. Hence, when the kidney is fixed, and is not too large, lumbar nephrotomy is to be preferred. For movable kidneys, however, laparotomy must be performed.—*Centralblatt fur Chirurgie*, No. 45, 1879.

The Lactosuria of Puerperal Women.—Investigations recently carried on in the chemical laboratory of Prof. Hoppe-Seyler, in Strassburg, have confirmed the observations of Hofmeister, who found in the urine of puerperal women a substance possessing all the characters of milk-sugar. In addition to the other reactions, when the crystals of this substance were gently heated with nitric acid, mucic acid was obtained; this reaction is alone sufficient to prove its identity with milk-sugar. The investigations showed further, that the quantity of milk-sugar in the urine increased in direct ratio to the engorgement of the breasts with milk. Whenever the tension in the milk-ducts was greater than that in the surrounding lymphatics, those parts of the milk that are capable of diffusion and transfusion, viz., the water, the milk-sugar, and the salts, were taken up by the blood; hence we have to deal here with a resorption-diabetes. The quantity of the milk-sugar in the urine was very great when the child was not put to the breast.—*Centralblatt fur Chirurgie*, Nov. 8, 1879.

Transmission of Hydrophobia from Man to Rabbits.—M. Raynaud inoculated a number of rabbits with the saliva and blood of a hydrophobic patient on the day before death. The inoculations of blood gave negative results; the inoculations of saliva, however, were followed by rabies in a relatively short space of time, at most a few days. M. Raynaud also extirpated the submaxillary glands of two rabid rabbits and inoculated them on two healthy rabbits; the results were equally positive, that is to say, the inoculations were followed in a short time by the symptoms of rabies. No reliable case of the transmission of rabies from man to man has yet been recorded, but M. Raynaud thinks that after his demonstrations of the possibility of its transmission from man to rabbits, it is fair to conclude that the results would be identical in the case of man, if accidentally inoculated.—*Le Progrès Médical*, Nov. 15, 1879.

On the Immobilization of Diseased Joints.—At the meeting of the *Société de Chirurgie*, on November 12th, a paper on Ankylophobia, by M. Verneuil, came up for discussion. In that paper M. Verneuil stated that inflamed joints regain their power of movement more rapidly when they are kept immovable for a very long time. M. Tillaux contested this statement, and claimed that too prolonged immobilization may lead to unpleasant results. He formulated his theory of the treatment of arthritis on the following propositions: 1. As long as an acute or chronic arthritis is still in the inflammatory stage, the only rational treatment is absolute immobility; 2. If, however, the joint be in a bad position, it is necessary to correct this before immobilizing the joint; 3. When the inflammation has entirely ceased, and any stiffness remains, the joint must be made flexible by artificial movements; 4. If the inflammation be chronic, if the case be one of white swelling, and the position of the limb be good, artificial movements should not be practised.

M. Championnière also took issue with M. Verneuil. He claimed that prolonged immobilization is liable to be followed by retractions, rigidity, and functional impotence, which in the case of some fractures, as of the olecranon and patella, are regarded by many authors as more objectionable than fibrous union. He cited a case in which, after an apparatus had been worn for two months for a fracture of the radius, there was considerable rigidity of the fingers, wrist, elbow, and shoulder. He added, that in some forms of suppurative arthritis, mobilization had seemed to him exceedingly valuable. His experience only covered five cases; but in two of them, in which the knee-joint had been freely opened for the evacuation of pus, he had practised artificial movement of the joint from the very first day, and at the end of a month the movements were much freer than in a case operated on by M. Verneuil for foreign body in the knee, and treated by immobilization. These two patients were almost able to touch the buttock with the heel. In the other cases the joints were kept immovable for a time, and the movements were less perfect, or at least were regained less rapidly.

M. Terrier stated that Jarjavay only kept fractures of the radius in an immovable apparatus for about twelve days, for fear of consecutive articular rigidity, and that his results seemed to be good.—*Le Progrès Medical*, Nov. 15, 1879.

On Hydrophobia.—After numerous observations and experiments, Gattier has found that the saliva collected from a living rabid dog retains its poisonous powers when dissolved in water, for from twelve to twenty-four hours. This fact is important, inasmuch as it shows that the vessels from which a rabid dog has drunk should not be used for at least twenty-four hours afterward, and also renders it probable that the disease has sometimes been communicated simply by the use of such vessels, and without direct infection by a bite. He has also found that the cadaver of a mad dog does not lose its infecting power as soon as it becomes cold, but that it retains this power for twenty-four hours; this fact should be borne in mind during the examination of the mouth and neck of the dead animal.

In respect to the mooted question of the transmissibility of rabies from dogs to rabbits, Gattier has attained positive results, and he has also succeeded in transmitting it from rabbit to rabbit. In these animals the principal symptoms were paralysis and convulsions. The disease proved fatal in from four hours to four days, reckoning from the outbreak of the symptoms. The duration of the period of incubation in rabbits was shorter than in other animals, a fact which renders the former peculiarly suitable for experiment. Subcutaneous injections of salicylic acid, employed with a view to prevent the outbreak of the disease, proved utterly useless.—*Allg. Med. Cent. Zeit.*

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SURGEONS IN PUBLIC JOURNALS.

Those of our readers who may peruse the generous and manly defence of Mr. Keith by Dr. Marion Sims, may be ready at first blush to take us to serious task for our remarks concerning the reports of operations in public journals. If, by anything we have said, we conveyed the impression that Mr. Keith was not entitled to the reputation of a remarkably successful surgeon, and was not worthy of all praise for splendid achievements in ovariotomy, we have certainly been misunderstood. We perfectly agree with our correspondent in his estimate of the subject of his epistle. So firm is our belief on this point, that we admit from the start all the good that can be said of him.

Our remarks concerning the notice of operations in public journals were made from a general standpoint. It is just such cases as that of Mr. Keith which establish precedents for all sorts of laudatory notices, and open wide the door for any amount of medical advertising. It is hardly the question whether or no a particular surgeon deserves the reputation of a brilliant and successful operator, but whether the profession as a body is benefited by such notices as from time to time find their way into the daily papers. It appears unjust on its face to deny any great man the benefit of a reputation which he may have gained; but, in view of the fact that just estimates of real worth are not usually made by newspaper reporters, the profession thinks it better to allow the really worthy to suffer, rather than the unworthy should profit at their expense. Where one good man gets his meed of praise and strict justice in the daily press, a hundred are apt to be gratuitously advertised on the flimsiest possible pretext. It is just this latter class that benefit by such proceedings, and it is on this account that the profession, as a body, has been led to protest against newspaper notices altogether. It has not yet been settled where the line shall be drawn between the deserving and the undeserving, and it never can be until the public is educated to the point of being able of itself to discriminate between the two. At present the newspaper reporter will make as much of the surgical attendant who removes a wen or extirpates a fatty tumor, as of the operator who successfully excises the spleen or takes away a kidney.

In Scotland, the public may be sufficiently educated to appreciate a great and good man, but in this country the case is altogether different. If our people possessed the right standard of intelligence, how many of the really great men in our profession would be known to the world, and how few of the present pretenders would be heard from! Humanity could then rejoice understandingly, and the profession could be properly appreciated and appropriately honored by the world at large.

We cannot help believing that our esteemed correspondent allows his enthusiasm to get the better of his judgment, when he virtually charges the profession of this country with narrow mindedness in objecting to public notices of medical men. There is no narrow-mindedness in any policy which contemplates justice to the greatest number. It is so much the exception for the deserving medical men to get noticed by the press, and so common for such as are hardly second-rate to have a newspaper notoriety, that the true dignity of the profession appears to be best preserved by a modest silence.

It is not on general principles considered fair for one man, or any set of men, to benefit themselves at the expense of their equally deserving brethren. There is something else for the larger fish to do than to swallow up the smaller ones. If in this country, as in Scotland, the men really entitled to the distinction would always be in front, the profession could afford to be liberal in the sense claimed by our correspondent, and to take a just and noble pride in its true representatives. As it is, however, the time has not yet come, in this country at least, when humanity at large can have an opportunity for rejoicing in finding such men. We have no doubt there are many such here, but we have yet to hear of them through the newspapers.

NEW WARRANT FOR THE BRITISH ARMY MEDICAL DEPARTMENT.

The new warrant, or code of regulations for the medical department of the British army, has at length appeared, and seems to excite very general approval. The only serious criticism made is upon the fact that but half the officers are to be appointed by competitive examination, the other half being at the dictation of the Secretary of War.

The British army surgeons have different grades from those of our army, and the position and pay of these officers is scarcely as good. The first position assigned the appointed medical officer is that of sur-

geon on probation, at $2 a day. He is then obliged to pass through a course of study at the Army Medical School, at the end of which is a competitive examination. Should he pass this, he becomes a surgeon on $1,000 a year, which in five years is increased to $1,250. Having served twelve years at full pay as surgeon, he may be promoted to surgeon-major at the lucrative salary of $1,800 a year. This, after fifteen years of service, is increased to the amount of fifty cents a day.

A person may be surgeon-major all his life, unless he has the good fortune to be selected for promotion to brigade-surgeon. The chances are smaller yet that he ever rises still higher and becomes deputy-surgeon-general, or surgeon-general. The rank of the medical officers is as follows: The surgeon-general ranks as major-general; deputy surgeon-general, as colonel; brigade-surgeon and surgeon-major after twenty years' service, as lieutenant-colonel; surgeon-major of less than twenty years' service, as major; surgeon, as captain; surgeon on probation, as lieutenant.

An excellent feature, which to some extent offsets the very low rates of pay, is that of giving gratuities in case of retirement. Thus, after ten years' service, an officer may retire with a gratuity of £1,250. This amount is increased with the length of the service.

The effect of these new regulations has already been very marked. Eighty students have entered for the coming competitive examinations. Before the warrant, it was with the greatest difficulty that any good men could be secured for the service.

VOCAL PHYSIOLOGY.

It is said that one of the leading sopranos of this city is making some study of the physiology of the voice, and has already furnished contributions to that department of science. We believe it is a fact that in the history of music and musicians there have been only two persons who have contributed any scientific knowledge concerning the organ which has been the source to them of so much revenue, reputation, and pleasure. Manuel Garcia, the brother of Mlle. Malibran, and now a famous teacher in London, first discovered that the vocal cords could be seen and studied in the living subject. Mrs. Emma Seiler subsequently discovered certain cartilages in the vocal cords which she believes are essential in the production of falsetto notes. These cartilages had not been noticed by anatomists previously, because, as stated, they exist only in woman, whose larynx being smaller, is not often dissected minutely. Mrs. Seiler is now conducting a successful school of music in Philadelphia.

It is not long ago that the idea of a knowledge of vocal physiology being necessary to a singer or speaker would be uniformly ridiculed; and there is no doubt that the most famous artists have achieved success by empirical help alone. The fine arts have always been far in advance of the classified knowledge of those laws which are ultimately discovered to be at the base of them. To the artistic temperament, also, scientific facts and methods are generally distasteful. It is felt that a high note can be sustained just as well without a knowledge that the crico-thyroidei are in a state of firm contraction.

Such reasoning, however, seems to be somewhat narrow. For, after all, it is only few, comparatively, who by empirical methods can be successful, either as teachers or pupils, and those few must have a great natural talent. The number of persons who use the voice has been vastly increased in late years, and with them, necessarily, the number of instructors. The scientific knowledge already acquired in regard to the production and care of the voice is so definite that no intelligent teacher can err in the fundamental facts he has to impart. The studies of Garcia have saved thousands of voices. The theories of Mrs. Seiler, that with each register there is a marked change in the anatomical arrangement of the organs that are concerned in producing the voice, have certainly great importance.

But, whatever be the facts as to the propriety of singers and speakers being fortified in their artistic studies by physiological data, it is evidently thought by publishers that interest in this direction is increasing. Four books on vocal physiology and hygiene have within a short time been published and brought to our attention. These have been made enticing to the public by elaborate cuts showing sectional views of the throat, protruded tongues, and the chordæ vocales at every possible angle. After the first shudder, which is the tribute to science of the æsthetic sense, perhaps such works will incite to studious interest. There are still a number of theories to be settled and facts to be contributed to the subject of the production, training, and care of the voice.

THE NEXT MEETING OF THE STATE SOCIETY.

The next meeting of the Medical Society of the State of New York will be held at Albany, commencing Tuesday, February the third. In another column will be found a list of some of the papers which will be read. Judging from the programme, it is safe to predict a successful meeting. The topics to be discussed are of sufficient variety and interest to meet the wants of every member.

We need not remind those who may have lengthy papers, of the necessity of presenting them in abstract; nor is it necessary to hint to such as may discuss them, to make their remarks brief and to the point. The long papers, which should of necessity be few and far between, may appear in full in the journals or Transactions; but all the points necessary for practical discussion can be brought forth in the

abstract. There used to be a good rule in this Society requiring the proper division of time upon papers and discussions, and many of the members will recollect how frequently the venerable Clarke, in his peculiarly humorous way, would remind the members of its value. He was right every time he spoke upon the subject, and if his precepts live after him, and the readers of the papers before this or any other society are willing to follow them, what interesting and profitable occasions may be the meetings of all our societies!

DOCTOR VS. APOTHECARY.

It is a notorious fact that many druggists use the prescriptions sent in by physicians over and over again. This they do to their own advantage and the detriment of the physicians. It is very well known also that druggists themselves prescribe not at all rarely, especially for venereal diseases. It is a fact, in the third place, that druggists do not always put in the drugs exactly as given, or else they substitute poor drugs, and that they charge so enormously for the prescription as to make it difficult for the patient to pay both druggist and doctor.

These are old abuses, but they have recently been commented on again, and very strongly, by the *New Orleans Medical and Surgical Journal*, and the *Louisville Medical News*.

Now, the physician is the best friend the druggist has, and it will be wise for the latter to bear the fact in mind. There is a limit to the imposition to which the profession will submit. It is suggested by the *News* that a co-operative society of physicians, buying its own medicines in convenient and elegant form at wholesale prices, and furnishing them at cost to its members, might be a means of saving both physicians and patients no little money. Whether such a scheme be practicable or not, it is certain that something will eventually be done in this direction unless the druggist mends his ways.

STATE HOSPITALS AND STATE COLLEGES.

In an address on State Medicine (*Cincinnati Lancet and Clinic*), delivered by Dr. Thad. M. Stevens before the Tri-State Medical Society, Nov. 5th, the subjects of hospital organization and medical education were taken up. After enumerating the many deficiencies in these, he suggested as a remedy in many States the organization of State hospitals, and with State medical colleges attached. He emphasizes the conclusion that: "with a State hospital well constructed and well equipped for the wants of patients, and a State medical college, with privileges to be derived from such hospital, managed by a competent and industrious corps of teachers; with a board of examiners not in any way connected with the college upon whose certificate diplomas are given—with such a system a higher and better medical education would be insured."

There cannot be any doubt about this. But how is this particular phase of the ideal to be attained in States where colleges and hospitals are already firmly established and, in part, endowed? And this includes nearly every State.

REPORT OF THE HEALTH OFFICER OF THE PORT OF NEW YORK.

Dr. S. D. Vanderpool has made the annual report of his work to the Quarantine Commissioners. The number of foreign ports at which yellow fever prevailed last season, together with the epidemic in Memphis, made the duties of the Health Officer particularly onerous. During the past year, ninety-five vessels which had yellow fever on them, or had had the disease previously, arrived at this port. So persistent has the disease been at some of the West Indian ports that vessels infected with yellow fever continued to arrive here until the end of the year.

Two hundred and fifty-six cases have occurred on the infected vessels. At the Quarantine Hospital twenty-nine cases of yellow fever were treated, of which eleven died. In addition, twenty cases of malarial fever were in the same hospital.

Only seven cases of small-pox arrived at the port during the year. The practice of making a preliminary examination of emigrants before sailing now prevents the introduction of this disease.

Dr. Vanderpool discusses the methods and practicability of disinfecting infected vessels. A number of plans have been proposed for this object, but there are three principal ones: the refrigerating process, that by superheated steam, and that of sealing a vessel and then pumping in large quantities of air, so that by a process of oxydation the materies morbi may be destroyed.

Dr. Vanderpool is willing to admit that the methods may in certain cases accomplish their object, but he asserts that practically they are inapplicable and valueless. They would involve a delay and an additional expense, which would amount to an obstructive quarantine. Referring to the proposed refrigerating plan, he doubts very much whether it would at all insure the destruction of the germs.

On the whole, he believes that the present method of quarantining, lightering, thorough cleaning, and disinfection with sulphurous acid, is sufficient and is all that can be undertaken without paralyzing our commerce with southern ports.

Last summer a case of yellow fever, in the person of the stewardess of a vessel, in spite of quarantine, got into the city, and was sent as a case of malarial fever to the Presbyterian Hospital. The vessel on which the patient had sailed came from Havana, and had several cases of malarial fever on board. After the five or six days' trip from Havana, and ten days'

quarantine, no yellow fever appearing, the vessel, having been cleaned and disinfected, was sent to the dock. Ten days later the case of yellow fever referred to broke out. As the period of incubation of yellow fever rarely exceeds five or six days, and as the vessel had been, it was supposed, thoroughly cleansed, the appearance of the fever was very puzzling. Dr. Vanderpoel states, however, that, having had the vessel sent back to quarantine, he made a more thorough examination of the hold. He found that there were no niches in the framework on either side of the keelson. These niches ought to be present, and, when they are, they allow the foul matters that run down between the ribs to flow on into the well, whence they can be pumped out. In this vessel there was a great deal of filth found to have accumulated. This was removed, and there have been no cases of yellow fever on the vessel since.

No better illustration could be given of the necessity and usefulness of cleanliness for the prevention of yellow fever, whatever other measures be resorted to.

As regards special measures of disinfection, Dr. Vanderpoel seems to be correct in his opinion that none of these methods referred to can be adopted, as in the ordinary routine of quarantine duty. It is not unlikely, however, that superheated steam can be employed with success in certain special cases where prompt and thorough disinfection is desired. No method of disinfection, however, can be more than a supplement to thorough cleansing.

Dr. Vanderpoel's success in protecting this city from yellow fever during the past year, without obstructing commerce, is a matter that redounds greatly to his credit. The skill displayed and the care necessitated to secure these results cannot be too greatly praised or too highly appreciated.

KEEPING CHILDREN AFTER SCHOOL.

Physicians will commend the very sensible view taken in *Good Company*, on the subject of keeping children after school. For some trifling breach of discipline, numbers are obliged to remain in the bad air of the school-rooms, when already exhausted by the day's confinement. School-houses are thus turned into penitentiaries, and some of the children, perhaps, into invalids. It is well enough to use this means of discipline occasionally upon the healthy and vicious. But thus to confine the very young or the delicate beyond the usual hours is a practice liable to cause serious injury. Teachers are to remember that an education gained at the expense of health is of no value. And the importance to the growing child of keeping in the best physical condition should be borne in mind in matters of discipline as well as of instruction. Then, again, the teacher suffers as much as the pupil. This consideration alone should make the practice unpopular.]

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Dec. 24, 1879.

Dr. E. L. Keyes, President, in the Chair.

A TRACHEOTOMY-TUBE WORN FOR SEVENTEEN MONTHS WITHOUT INJURY.

Dr. Beverley Robinson presented a patient upon whom he had performed tracheotomy two years ago. His object in so doing was to illustrate the fact that a tracheotomy-tube could be worn for seventeen months without any injury to the trachea, and that the function of the latter, as well as that of the larynx, could be perfectly restored after the healing of the wound. The history of the case had been presented to the Society on a former occasion.

MYOFIBROMA OF UTERUS OF LARGE SIZE.

Dr. J. C. Peters presented a specimen of myofibroma of the upper and posterior portion of the uterus from a lady aged 37 years. The patient, married five years, had been apparently in perfect health up to eleven or twelve weeks ago, when she became unusually fatigued while standing at a funeral. There was no evidence that she caught cold on that occasion. Shortly after she suffered from a great deal of pain and discomfort. Dr. Peters was then sent for, and found on examination that the os uteri was under the pubes, also what he thought to be a retroverted womb containing a fibroid tumor. The organ was quite firmly fixed, and was packed tightly in the pelvis. After considerable effort Dr. Peters succeeded in dislodging it, thus relieving somewhat the effects of the previous pressure. The patient was benefited somewhat by this procedure, so that she could change from the recumbent to the sitting posture. Being absent from town, Dr. Peters did not see her again for a fortnight. In the meantime she was examined by one of the leading gynecologists of the city, and shortly afterward a miscarriage was the result.

After the miscarriage the cavity of the uterus appeared to be clean, but, as the sequel showed, a portion of the placenta remained, giving rise to a very offensive odor. The mass was promptly removed. Peritonitis next occurred, and the patient died in ten days.

Dr. Peters remarked that the interesting points were, the difficulty in diagnosis, the peculiar position of the tumor, its size, rapidity of growth, and the supposition that it was undergoing sarcomatous degeneration.

ANEURISM OF BASILAR ARTERY—RUPTURE AND SUDDEN DEATH.

Dr. Amidon exhibited a specimen of aneurism of the basilar artery, from which hemorrhage occurred, causing almost instant death. The patient was a male, aged 44.* There was a history of alcoholic indulgence for many years until four years ago, when he almost had delirium tremens. Fifteen years ago the patient had a chancre, which, with the secondary and constitutional symptoms, were thoroughly treated by the late Dr. J. O. Stone. The last syphilitic symptoms were seen at least twelve years ago.

* The case occurred in the practice of Dr. J. H. Emerson.

Five years ago, while at table, he had a fit with loss of consciousness, clenching of the hands and frothing at the mouth. No other seizure was known.

December 17th, while in his office, he "fainted," fell off his chair to the floor, and came to himself slowly, remaining confused and dull. Under Dr. Lewis's observations, since the seventeenth, there has been gradual improvement in the mental condition of the patient, who was still stupid, but presented no objective symptoms. The urine was normal.

December 20th. Has been improving steadily. He denies headache or dizziness. Patient was seen in consultation by Dr. Seguin. The walk is correct, but feeble. Speech slow, vocal clear, pupils equal and active, fundus of the eye normal. No paresis in face or body. Heart normal, pulse slow, less than 70; has been slower. There was a flattened node on the right tibia. A *diagnosis* was made of cerebral syphilis.

December 21st. The patient was seen by Dr. Emerson at —o'clock, and seemed still better. He had gotten up of his own accord and washed himself. Except his pallor and slow pulse (65), there were no objective symptoms.

A few minutes later the patient lay down upon a sofa, made some noise which attracted his relatives, and almost instantly expired, without convulsions.

Autopsy twenty-seven hours after death. The skull was of extraordinary thickness. On removing the brain, as soon as the optic nerves were cut by the knife, considerable semi-fluid blood welled up.

After the brain was removed the entire interpeduncular space was seen to be filled with pretty firm blood-clots. These covered also the anterior surface of the pons and medulla, and extended far down the anterior surface of the spinal cord. The hemorrhage was entirely intra-meningeal in location, the brain seeming not lacerated anywhere.

The source of the hemorrhage was found to be a small aneurism (size of large bean), situated at the bifurcation of the basilar, a little to the right of the median line at the anterior border of the pons Varolii. There were no miliary aneurisms, and the arteries presented a nearly normal appearance.

Dr. Seguin remarked that when he saw the patient the latter was absolutely free from any symptoms, save those referring to slight sluggishness of mental action. He could use words correctly, walk perfectly straight, and had possession of all his faculties. At the time Dr. S. thought that the mental sluggishness might have been due to the epileptiform convulsion which the patient had suffered a short time before. He confessed, however, that he had not found the cause for a similar attack which had occurred to the patient five years ago, unless it was possibly due to the basilar aneurism which may have occurred at that time and created the necessary interference in the circulation of the circle of Willis.

Dr. Peters remarked that there were ten or twelve cases of aneurism of the basilar artery in the records of the Society, attended with rupture.

Dr. Seguin asked if death had been sudden in those cases.

Dr. Peters did not recollect.

Dr. Seguin remarked that there were cases on record in which death had occurred almost instantaneously. He was aware that such a possibility was denied by some authorities. In the present case death must have occurred in a very few moments.

Dr. Satterthwaite said that hemorrhage into the medulla, even though it were of small amount, might cause instant death.

Dr. Amidon referred to two cases of extensive cerebral hemorrhage in the lateral and fourth ventricles, in which the patients lived twenty-four hours.

CEREBRAL HEMORRHAGIC PACHYMENINGITIS.

Dr. Seguin presented a specimen of cerebral hemorrhagic pachymeningitis with the following history:

CASE OF CEREBRAL HEMORRHAGIC PACHYMENINGITIS.

Mr. X——, æt. 68, a merchant, seen on September 19, 1879, with Drs. Abbe and Herrick. The patient's general health had been excellent for years. In July of this year he had what was called a partial sunstroke. About the last week of August returned from a trip to Colorado, looking badly.

A few days after return, a "neuralgic" headache set in on the right side, and has continued, with intervals of from two to five days, until now. Within ten days from the beginning of this headache a most remarkable failure of muscular strength, not of paralytic form, manifested itself. Pain has been very severe, and more generalized (less neuralgic) in the last three or four days; severe at night. Since the 17th (two days ago) great restlessness, physical and mental apathy and failing strength, have been observed. No aphasic symptoms. A more important symptom has also appeared, viz.: a slight stiffness, with occasional clonic spasm of the right arm and hand. The right cheek has been thought flabby. Mr. X. has been indisposed to use the right arm and leg, and has preferred to lie in bed. The pulse, in the last two days, has risen to between 70 and 80, after having been slower. The axillary temperature has risen to 99½° F. Memory unimpaired; no albuminuria. Pain in head now diffused and frontal.

Examination.—Patient lying on his back, with his right forearm and hand in the semiflexed and adducted position, characteristic of contracture. Intelligence preserved; answers are slow, but correct, yet patient is indifferent and dull. Pupils normal; right orbicularis palpebrarum is the seat of constant clonic spasms, which extend to frontalis and other facial muscles. No twitching of right hand during the visit. Moves all limbs voluntarily, but extension of right arm and hand is incomplete, and there is marked rigidity to passive motion at elbow and in fingers. Mouth is drawn a little to the right (spasm); tongue is projected straight; articulation good; uses words correctly. No cardiac murmur, second sound hard, arteries tense; no redness on nates. In last two days involuntary, and, to a certain extent, unconscious micturition; patient is now wet without knowing it. No retention. Was always right-handed.

The symptom diagnosis was partial right hemiplegia, and it seemed to me that the most likely anatomical cause of such a peculiar paresis with hemispasm (face) was gradual interference with the blood-supply of the motor area above the speech-centre on the left side. I expressed the opinion that Mr. X. had atheromatous cerebral arteries, and that the terminal branches of the left Sylvian artery were blockaded. I anticipated gradually increasing hemiplegia.

I did not again see the patient alive, and I am indebted to Dr. Abbe for notes.

On September 20th, contracture of the left forearm and hand appeared, both arms being similarly stiff and semiflexed; they were occasionally drawn up by spasm. Vomited.

Sept. 22.—Increased drowsiness; both arms con-

tractured. Complains of head feeling hot inside (cool outside). Lucid intervals. No anæsthesia. Temperature in axilla 100.5° F.; pulse 110.

During the last thirty-six hours of life the symptoms were profound drowsiness, absolute loss of vision. He occasionally whispered, and when asked if he heard what was said about him, said yes.

It is now stated that on September 18th (the day before I saw Mr. X.) he used the wrong words a few times, saying, for example, "diasnosis" for "diagnosis," etc. Mental action remained clear, but slow, until the last few days, when deep coma set in. During the last three or four days of life (even while some consciousness remained), sight was lost. To the very last of life the pupils were small and fixed. The pulse was abnormally full and slow from the onset of the disease (I found it *tense*), beating regularly from 58 to 60 a minute. At the time of consultation, six days before death, it was higher, nearly 80, and rose to 110 or more in the last three days. Slight fever was observed in the last few days.

The patient lived perhaps one month after the onset of the peculiar cephalalgia.

Sept. 25.—Died comatose.

Autopsy made 24 hours post-mortem. Head only examined. While removing the calvarium two unusual phenomena occurred. When the sawing was nearly done a small hole was made in one temporal region through the dura mater, and from this, through the line of sawing, a fine jet of dark blood came out with extraordinary force, not per saltum. When the skull-cap was torn off (with great effort, as the dura was closely adherent to the calvarium), the dura gave way in the frontal region, and a perfect torrent of dark liquid was forced upward and backward, drenching the operator, striking his face, and some of it reaching three or four feet behind the head upon the floor. No one present (Drs. Herrick, Abbe, Amidon, and myself) had ever witnessed such an occurrence.

It was soon seen that this escape of liquid blood was from the cavity of an immense double hæmatoma; a large amount of fluid blood and some sheet-like clots lay in cavities formed externally by the dura mater and internally by a false membrane, united at its margins to the dura. There were thus two sacs extending over almost the whole of the superior and lateral aspects of the cerebrum. These sacs extended from the outer border of the anterior fossæ to the tentorium cerebelli, being thickest at about their middle, *i. e.*, over the fissures of Rolando and Sylvius, and the adjacent motor convolutions, thinning off in all directions. It seemed to me that there was but a thin sheet of clot and membrane over the posterior part of the third frontal convolution on either side. Judging from the violent irruption of blood which occurred on opening the skull, it seems evident that the liquid blood in the sac must have been under enormous pressure. Another proof of this lay in the remarkable deformity which the cerebrum presented, the hemispheres in their upper median regions being concave instead of convex. The greatest depression below the normal level of the convolutions was estimated by those present at about 18 mm. or two-thirds of an inch. The excitable districts on both sides—the centres for the forearm and leg, according to physiologists—were the seat of greatest depression. The speech-centre seems to have escaped direct compression. The arteries at the base of the brain and in the fissures of Sylvius were normal. The arachnoid and pia were everywhere healthy; not opaque or adherent to the false membrane. The brain was not cut, as I desired to preserve the cerebral deformity, which for an hour did not vary. In hardening, the whole brain was somewhat distorted and the depression made to seem less.

The Society the went into executive session.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, January 8, 1880.

FORDYCE BARKER, M.D., LL.D., IN THE CHAIR.

THE Academy was called to order at 8.15 P.M., and the minutes of the last stated meeting were read by the Secretary, DR. H. T. HANKS. The President announced the completion of the fusion of the Medical Journal Association with the Academy, and stated that he believed every one who had the interests of the profession at heart, must regard it as a consummation that would be of great advantage to the profession, not only in the present, but in the future. He then announced that the polls were open for the annual election of officers. Dr. Janes presented the report of the Committee on Admissions, which contained the names of a large number of applicants. Prof. Mayer, of the Stevens Institute, and Prof. Rood, of Columbia College, were introduced to the Academy, and invited to take seats on the platform.

THE GRAPHIC METHOD, AS APPLIED TO PHYSIOLOGICAL RESEARCH.

DR. J. W. S. ARNOLD addressed the Academy upon the above subject, and demonstrated how exactly certain physiological phenomena can be observed and recorded by this method, which reduces experimentation, in all its most difficult detail, to writing, and thus enables the experimenter to obtain an exact knowledge of the most complicated phenomena. The principles involved, and the various pieces of apparatus employed, in applying this method to physiological research, were then enunciated and described. The simplest conditions for measuring time occupied in travelling distance, is measuring the time consumed in going straight from one given point to another. Fractions of the time, in that instance, represent fractions of the distance, provided the rate of travel is uniform throughout. This straight line, ———, is the *abscissa*, and represents the time occupied by a continued act or movement. If a lever at rest makes such a line, and it be moved away from the direct line, the indication is, that something has impinged against some other part of the lever, and given *motion;* if the line of deviation is *oblique*, it represents a slow movement, and if *abrupt*, a rapid movement. These lines are called *ordinates*. By the aid of the abscissa and ordinates we are able to interpret nearly all the phenomena belonging to physiology, where the graphic method has been employed. The method is especially valuable in physiology, in studying muscular movements, particularly the complicated movements of the cardiac muscle (see MEDICAL RECORD, vol. x., p. 289 *et seq.*). Besides, all we know at present regarding the rapidity of nervous conduction, the time occupied in transferring impression into action, was obtained by the application of the same principle (see vol. x., p. 497 *et seq.*). The first piece of apparatus required is a travelling surface, moving at a uniform rate, and the most convenient is the cylinder devised by Ludwig, and since modified by several physicists. The next is a mechanical writer, to make

the respirations, and this must move with the least possible amount of friction upon the recipient surface which is to receive the impressions. The cylinder is usually covered with white glazed paper, or else with a tallow candle. The most complete writer, doubtless, is that known as Marey's *drum cylinder*, which consists of a small drum-barrel, over the top of which is stretched a piece of fine india-rubber, and to the side of which is attached a rubber tube that communicates either directly or indirectly—usually the latter, and through a second drum—with the lever which is to do the writing on the moving cylindrical surface.

One of these drums can be placed over the apex of the heart, and, the impulse being communicated to the rubber cover, displaces a certain amount of air, and thus transmits the impression to the writing lever attached, and a line indicating motion is made upon the smoked surface. Not only that, but the respiratory movements of the chest, by the aid of accessories, may be recorded at the same time, and thus after I opportunity to study the exact relations which the apex-beat, and its rhythm, have to respiration.

The double canula, or sound, devised by Marey, was then exhibited and described, by which a record can be obtained of what is going on within the cavities of the auricle and ventricle at the same time. It is introduced readily through an opening in the jugular vein of a horse, and passed down until one portion rests in the auricle and the other in the ventricle, and that without apparent discomfort to the animal. The sphygmoscope was then described, and the method of obtaining, at the same time, a registration of the comparative amount of force developed in different parts of the body.

Having obtained an inscribing and a receiving apparatus, *accurate measurement of time* became an important consideration, and that was secured by means of the tuning-fork, an instrument already known to vibrate a certain number of times to the second—the higher the pitch the greater the number of movements, or vibrations. The manner in which the tuning-fork used can be verified by the graphic method was explained, and the working of the various pieces of apparatus mentioned was shown. The *myographion*, or muscle-writer, was then described, including Marey's method of producing an *imbricated* tracing (see MEDICAL RECORD, vol. x., p. 200). An ingenious device, by his accomplished assistant, Dr. Maurice N. Miller, for the more convenient performance of the experiment of obtaining a record of the movements of a muscle of the frog's leg, was then described and illustrated upon the screen. The manner of measuring nerve-conduction was described, and the possibility of measuring the time occupied, before the movement occurs, after the brain wills that the right or the left hand shall move. The rapidity, therefore, with which thought travelled could be measured, and it had, when compared with certain movements in the physical world, been found to be quite slow. "Quick as thought," was, in comparison slow. Dr. Arnold then referred to the sources of error in the graphic method; how well they were already understood; how completely they had been obviated; and how unnecessary, at the present time, it was to be inaccurate, either in experimentation or demonstration. He believed it to be impossible to study advanced physiology without being familiar with the graphic method, since so much had been learned by it, especially in the schools in Leipsic and Munich.

The President extended the thanks of the Academy to the speaker, and invited Dr. John C. Dalton to open the discussion. He regarded the graphic method as one of the most important means for improvement brought forward within the last fifteen or twenty years. He regarded it as a means of making observations, and appreciating certain phenomena in a distinct, certain, precise, and positive manner, which we could not do without it. Ever since we had studied physiology, as the physicist studies physical science, advancement has been made; and one of the most important and useful aids we had called into our service was the graphic method. He was exceedingly glad that Dr. Arnold had been the one selected to bring the method forward that evening, for he had had more experience, and was more dexterous in its application, than any one in this neighborhood, certainly in the ranks of the physiologists. There is a little difficulty at first, in understanding the method, as for example, when we look into a book upon physiology, and see represented what are called abscissæ lines and ordinates, but if we would stop and think that one was horizontal and the other vertical, that the first means time, and the second means movement, the study was much simplified. Then there was the difficulty of keeping in mind the meaning, if we simply looked upon the tracings as they appear upon the page of a book, of the different curves placed there, mixed together—the ordinates and the abscissæ; but, having once seen the instruments work, and seen the tuning-fork mark the time, and the lever drawing up, there was no further difficulty in understanding it.

There are so many movements in the human body which follow each other with such rapidity that our unaided senses are incapable of catching and retaining them; and when we come to study the phenomena incident to such movements, the importance and usefulness of the graphic method at once becomes apparent. Its usefulness, however, depends entirely upon its accuracy. If the instruments record the movements correctly, they are valuable, but if they record them incorrectly, they are worse than nothing. This point has not been neglected. It is very easy to see many of the sources of error in their use—as, for example, the writing-levers are usually rods of certain length, working upon a hinge and writing upon a surface, and the work cannot be performed without friction, and friction retards movement. Has this been taken into consideration? So, also, the lever is pushed up by a certain force, and may it not make a record beyond the point which represents exactly the pushing force? Again, in consequence of being a lever working upon a hinge, its writing extremity cannot possibly move in a vertical direction, but it moves in the arc of a circle. The elasticity of the drum-heads, the tubes, and the air which is contained in them, the elastic material in general, etc., are all important factors which may affect the accuracy of the observation. The question naturally arises, is there any way of correcting these inaccuracies, and is there any method by which we can tell whether or not we are making correct observations and doing accurate work? All these points have been thought of and provided for; and Dr. Dalton then explained at some length how the inaccuracies had been overcome by removing the sources of error; so we may now feel satisfied that the knowledge we obtain from these instruments is important, and it is truthful. Certainly, a great deal of skill is required to use them properly. He referred to the experiment upon

he heart of the horse, and spoke especially of the eeming entire lack of sensitiveness when the canula s introduced into the cardiac cavities.

The discussion was continued by Prof. Mayer, of he Stevens Institute, who added the fact that the graphic method had been so perfected that it showed when the investigator was upon the right and when upon the wrong track. He spoke of the method of letermining how long the sensation of sound remains after the exciting cause has ceased to act upon he tympanic cavity.

Prof. Rood, of Columbia College, while somewhat familiar with the use of the graphic method in physics, was not at all familiar with its application to physiological research; yet, regarding the reliability of observations made by the method, he could corroborate all that had been said upon that point. He also referred to the fact that an American had been one of the most active workers in the world upon he physical portion of the question, and had reached a precision in knowledge regarding the number of vibrations which tuning-forks make to the second that had been sought and patronized by the most scientific men of the Old World—Prof. Mayer, of the Stevens Institute.

The discussion being closed, the Academy proceeded to the transaction of unfinished business, after which it adjourned.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, December 22, 1879.

Dr. A. E. M. Purdy, President, in the Chair.

The Society was called to order at 8 P.M., and the minutes of the last stated meeting were read by the Secretary, Dr. F. A. Castle.

"THE ORGANIZATION AND OPERATIONS OF THE NATIONAL BOARD OF HEALTH,"

was the title of a paper read by Dr. John S. Billings, U. S. Army, and Vice-President of the National Board of Health. The speaker omitted the consideration of the general plan of the organization of the National Board of Health, with which the profession had been made familiar, also the history of its operations during the past year, which would soon appear in the annual report; nor was it his purpose to reply to the objections to the existence of the organization, for the opinions of nearly every important sanitary organization had been expressed emphatically that the National Board of Health should be continued substantially as it is now, and therefore he regarded it as a waste of time to discuss the latter point. The principal object of the paper was to bring up for discussion the vexed subject of "national quarantine." Preliminary to the consideration of that question, Dr. Billings reminded his audience of the forms of public health organization in France, Germany, and England.

In France the public health organization not only takes into consideration measures of quarantine, but such questions as the propagation of vaccine, the inspection of mineral waters, and the qualifications of the inspectors of the same, both medical and pharmaceutical, sanitary police, questions to be submitted to the Academy of Medicine, members of special commissions, etc., etc.

In Germany a public health organization was established in 1875, simply as a board for counsel and advice. One of the chief objects of the board was to elevate public hygiene into a science, and to submit propositions in connection therewith.

In England the board of public health has nothing to do with quarantine, strictly; in fact, England has no system of quarantine.

In the United States the main purpose of the National Board of Health is to collect information and give advice relating to sanitary matters, and like other powers mentioned in the act giving it an existence.

The essential difference between the board of health in France and that in the United States is, that in this country the board is not obliged to wait until it is asked before offering advice. It was not *a* board to collect and furnish information with reference to various sanitary questions, but it was *the* board, and it did not seem advisable to make any change in the form of organization at present.

The practical point of public hygiene must rest upon utilitarianism, and, to be most effectual, its work must be carried on with the least interference with commerce, travel, and with the least conflict with local self-governments and the general interests of the public. Such a work must be essentially of the nature of a compromise; for, the local interests of such a country as ours vary with varieties of climate and latitude, education and habits of the people, etc. In the United States such a public organization should be as elastic and flexible as compatible with stability; indeed, such flexibility was essential to its stability. One of its most important functions was *educational*. Sanitary science was a new thing in this country; but few had paid any special attention to it. It was popularly supposed that *all medical* men were sanitarians, and when they were appointed to fill places in health boards, all had been done that was possible to preserve the health of the locality in which such boards were organized.

The topics for observation were many, but the qualified observers were but few. Certain statistics were needed for the benefit of public hygiene, and their *value* must of necessity depend upon the knowledge which the general medical practitioner possessed. The National Board of Health, by its publications, by the education it could give through the public and the professional press, could and should give a favorable stimulus to the processes of sanitary education, and could be the means of saving a vast amount of money to the country by its recommendations. A very important part of the higher education of modern times was to teach how to obtain the higher knowledge, and the best way to teach was to perform the work and show the people how it could be done.

With reference to quarantine, the old idea of *detention* should be rejected. Quarantine was defined as a system of administration employed to determine the presence or absence of causes of contagious or infectious disease existing either in persons, articles of clothing, or vehicles of communication; to secure the destruction of the morbid elements, and the removal of such causes; and to do so with the least possible interruption to travel, etc., and with the consumption of no more time than is absolutely necessary for purposes of inspection, cleansing, and disinfection.

Two changes had been suggested with regard to the National Board of Health. First, that the board should have a single officer. Those who maintained that opinion were decidedly in the minority. The majority of sanitarians did not think it proper to

place so much responsibility and power in the hands of a single individual. Second, all the good results could be obtained by establishing a small executive committee which should be constantly on duty and acting under instructions. The mouthpiece of a national board of health must be stronger than if he were a sole officer.

The speaker then passed to the consideration of the fact that no satisfactory quarantine establishments existed on the Atlantic coast south of Philadelphia. In view of the poor inland quarantine in this country, notwithstanding the feeling in some Northern ports that because they have provided themselves with efficient quarantine accommodations, other ports should do the same, it might be well not to be too grudging in furnishing means to protect our brethren of the South. The bread cast upon the waters might return.

There was an abundance of subjects for legislation relating to the pollution of streams, sources of water-supply, adulteration of food and drugs, diseases of domestic animals, hygienic management of public buildings, and the collection of vital statistics. The estimated cost of placing the quarantine stations along the Atlantic and Gulf coasts in good condition, now, was $185,000. In addition to what now exists there would then be required $200,000 for annual expenditures. In addition to the regular annual expenditures, $100,000 should be in fund to be used for emergencies, such, for example, as that which had been encountered within the past year.

In connection with the estimates, two practical questions arose: 1. What results can be secured by such an investment? and 2. Would the investment be judicious and remunerative? The result would be: 1. The prevention of the occurrence of some epidemics of diseases, such as yellow fever, cholera, plague, typhus fever, and small-pox; 2. The securing of such an amount of education for the people as would induce the taking of measures to obtain abundant power in all localities to obtain a diminished amount of sickness and mortality; and 3. A natural increase in such knowledge of disease as would afford the most economical means of destroying its causes.

In conclusion, he appealed to the medical profession to aid in the great work.

The paper was accepted, and being before the Society for discussion,

Dr. S. O. Vander Poel, Health Officer of the Port of New York, on invitation, remarked that from necessity he had been not only familiar with the organization of the National Board of Health, but had watched its work with the greatest interest, and at times with jealousy. When the measure was first proposed it came from a source which did not inspire him with confidence, and tacitly he was opposed to it; but when the appointing power was placed in the hands of the President, he at once, and had ever since, given the organization his hearty co-operation. The amount of work which had been done by the board since its organization had been immense. We were apt to form our estimates of the duties and labors of such a board upon different European models, but then they had none of the difficulties relating to climate and habits which met such an organization in this country.

Again they had had to contend with the jealousy with which this country regards central organization as exhibited among different States. The work which they had performed was justly entitled to the respectful consideration of the medical profession of the country.

In some respects he might not agree with the National Board of Health. Its duties were, to a certain extent, administrative, but he believed success depended more upon the character of the men to whom the trust was confided, than upon the mere arbitrary execution of the law to which they were subject. So long as the gentlemen administered the law fairly, frankly, and justly, they could to a great degree, conciliate and keep dormant the prejudices which naturally rise in every locality. The obtaining of sanitary surveys in this country was one of the most important duties of the National Board of Health. A thorough knowledge of the sanitary condition of every locality would enable it to act more promptly than it otherwise could do in cases of emergency, and under circumstances requiring immediate action. He suggested the division of the coast quarantine system into districts, making one station answer for two or more ports, which would be a saving for the ports and the general commerce of the country. For example, a station at Fort Monroe might answer for Richmond, Washington, Baltimore, etc.

He thought a duty which the Society owed to the National Board of Health was to give it its full and hearty co-operation, and hoped the paper would be referred to a committee which would report upon it fully at some future meeting.

Dr. Ezra M. Hunt, President of the Board of Health of the State of New Jersey, on invitation, spoke of the relation existing between the medical profession and public health and sanitation; and believed that the arguments which established State Boards of Health should establish a National Board of Health. The greatest values were from the largest numerical data, and it was only through that channel that the greatest number of facts could be reached. He thought the work of the present National organization had done more towards settling the question of State and National sovereignty than had been done by politics during the past ten years. Congratulatory remarks were continued at some length.

Mr. Jackson S. Schultz, merchant, on invitation, spoke of the relations existing between public sanitation and commerce. Out of the yellow fever epidemic which occurred in New York in 1822, certain errors grew with regard to the subject of quarantine, and those who were so unfortunate as to be engaged in the rejected trades, such as in hides, rags, etc., were prevented from doing business up to 1840, and at a loss in money to the city of New York of at least $100,000,000, a sum which would have paid for a board of health from that date up to the present time. If these trades apprehended that they were to be stopped at any time, they would be willing to contribute, and could afford to contribute, to the building of hospitals and the founding of schools in which men could be educated in the methods of meeting the invasions of contagious and infectious diseases. He also thought that Congress would not hesitate to appropriate the money needed, if properly influenced by the medical profession regarding the necessity for such an expenditure. He also spoke of the accord existing between the health officer of the port of New York and the merchants, and of the feeling of the merchants that, if there was any danger of returning to those old practices, they would be willing to maintain not only a State, but a National Board of Health, for the purpose of promulgating correct views regarding public sanitation.

Dr. A. Jacobi, agreeably to the suggestion made by Dr. Vander Poel, moved the appointment of a committee to report upon the paper of the evening

at some future meeting. In all our affairs, political or otherwise, we were too apt to be directed by the democratic feeling that no one except ourselves should have to do with the direction of our affairs. We were very apt to overlook the fact that we depended upon the nation, and the nation upon us. We had always been opposed to centralization, always forgetting that centralized means are always required to accomplish great ends. When the study of that fact was closely followed, it would do much towards removing many of the prejudices now existing relating to the National Board of Health, and also special boards of health. It should not be forgotten that our country was smaller than it was fifty years ago; that is, the facilities for travelling and for communication were so great that distances had diminished in importance to such an extent that the remotest parts of our country were quickly accessible. All these considerations should enter into the formation of a report for such a committee.

The motion was adopted.

Dr. E. Seguin then read a scientific communication upon the Metric System, which was accepted and ordered on file.

The report of the Special Committee on the Yellow fever Fund was read by Dr. Wm. M. Chamberlain, after which the Society proceeded to the election of one delegate to the State Medical Society, to fill the vacancy caused by the death of Dr. Freeman J. Bumstead.

Dr. C. S. Bull was elected to fill the unexpired term of three years.

On motion by Dr. J. C. Peters, the thanks of the Society were extended to Dr. Billings for his interesting and valuable communication.

The President announced that at the stated meeting in January, Dr. Fordyce Barker would read a paper on "Puerperal Malarial Fever."

The Society then adjourned.

Correspondence.

SURGEONS IN PUBLIC JOURNALS.

To the Editor of The Medical Record.

Sir:—The Record never intentionally wrongs any one, but your remarks in last week's issue (Jan. 10th), under the above caption, do such injustice to my friend, Thomas Keith, the great Scotch ovariotomist, that I must beg you to let me say a word in his defence. I know Dr. Keith well, and I can truly say that a more modest, reticent surgeon never lived. He is the last man in the world to blazon his wonderful works before lay readers; and I am sure he had no more to do with the publication in the *Scotsman*, of which you complain, than you or I had.

But I do not wonder that his countrymen are proud of his achievements, for his record as an ovariotomist is simply marvellous; and their egotism is pardonable when we recall the fact that from the beginning his success far surpassed that of all other surgeons, and that since his adoption of the antiseptic method his cures amount to ninety-seven out of a hundred, while in one continuous series he had seventy consecutive successful operations without a death.

If such work as this does not justify his countrymen in a little hero-worship, I should like to know what would. Must Thomas Keith die before we shall dare to speak his name above a whisper outside the ranks of the profession? In our country, yes. But not so in Great Britain; for there a man of Keith's modesty and merit is always fully appreciated by his brethren: they feel themselves and their profession honored by his noble deeds, and they are not afraid to let the outside world know it. What harm can possibly come to the profession by the *Scotsman's* article on Keith's character and labors? It does not advertise Keith, for he is known in every household all over Scotland. It does not send him a patient he would not get without it. No. The labors of Keith ennoble medicine in the eyes of the world, and it is eminently proper that they should be spread before the world, and in the manner that Scotland's great newspaper has seen fit to do it.

Keith's success is not to be explained away by your query: "Was there no selection, no turning over of doubtful cases, no refusal to give a patient the very last chance?"

From my personal knowledge, I can assure you that Keith never selects his cases, never turns away doubtful ones, and never refuses to give a patient the last chance.

He operates on all that come to him, if there is the slightest hope whatever of saving life.

On the 1st and 4th of July last, I saw him operate on two almost hopeless cases—certainly hopeless before the days of Listerism. The adhesions were universal, and of the worst kind. In one he used drainage; in the other not. Each recovered promptly, and in each the pulse never rose over 99, nor the temperature over 100°.

You ask, "Have we a genius who never fails in diagnosis, who can foresee every contingency, and meet every complication with unerring judgment?"

I answer yes; but Keith is not a mere genius. He is greater than a genius. In diagnosis he is always clear and positive. He foresees and is ready for any contingency, and he meets complications with unerring judgment. Well may you say, "If so, then humanity should rejoice." But how can humanity rejoice, if we keep a knowledge of this great man's works walled up within the ranks of our profession? If "humanity should rejoice," why should we censure the *Scotsman* for giving humanity the opportunity to do so?

We should not complain of the world's knowing of Keith's great work, for it is the work of just such men that elevates and dignifies medicine in the world's estimation. From our little, narrow standpoint of view, we might fear that this would give a boom to Keith's material interests. That feeling may do for our country, but not for Scotland. For there Keith's merit is acknowledged by all, and there is no one to contest his claims. He stands so high, is so honorable, so noble, so grand, that he has no rivals. In Scotland there is no carping at the *Scotsman's* having spoken so frankly of Keith and his labors. The fact is that the *Scotsman* was simply the mouthpiece, not of Keith, but of his professional brethren, who are proud of his achievements. And there is no doubt that Keith is innocent of all complicity, directly or indirectly, in it.

I speak of what I know, and if we had on this side the Atlantic a little more Scotch liberality and Scotch independence, we would all be the better for it.

Yours faithfully,

J. Marion Sims.

New York, Jan. 15, 1880.

MEDICAL FEES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: There is another side to the question of "Medical Fees"—a side which is left untouched by your editorial articles and the comments of your correspondents. The essential difference between a profession and a trade is that, in the latter, measurable or ponderable commodities or quantities are vended, while in the former services are rendered which cannot be weighed or measured by fixed standards. The tradition of our profession still preserved as a rather poetic fiction by our British brethren—used to be that a physician's skill was beyond price; and the honorarium was not regarded as a cancelling payment, but as a testimonial of gratitude, analogous in this respect to the honorarin even now tendered to clergymen at marriages and christenings. In the beginning, thus freewill offering was made by the patient in proportion to his means, and although custom has since established a certain scale of "fees," the principle remains unchanged, and there is, I think, a grave objection to the phrase "equivalent in money for services rendered," as applied to medicine. "All that a man hath he will give for his life," and it can scarcely be called an "equivalent" when he is called on to disburse the price of a ready-made suit of clothes.

Touching the "itemizing" suggestion of your correspondent "X," it has long been matter of wonder to me that the public and the profession have not discovered the inherent absurdity of charging for the number of visits paid instead of for the service rendered. In the case of a pure consultant who sees each patient but once or twice, a fixed fee is, of course, expedient; but where the attendance extends over a prolonged period, the "visit system" is a direct premium on incompetence or dishonesty. An ignorant practitioner, working on a mistaken diagnosis or with scanty therapeutic lore, will keep his patient under treatment five times as long as would a master of our art; is it fair that he should receive five times as much remuneration? An unprincipled practitioner may multiply unnecessary visits, with a strictly "business-like" single eye to the resultant "items" in his quarterly or monthly account. If any business man had his choice between being cursed in forty-eight hours or being kept ill for a month, with three visits per diem from his doctor, for which alternative would he be willing to pay more highly? Again, it may happen to a physician on the one hand to save a life in a single visit, or, on the other hand, to have to pay a dozen visits to some trivial case which never imperils life; in which instance should he be more highly compensated? Lawyers are wiser in their generation than the disciples of medicine, and usually apportion their fees to the importance of the case in hand; and I can see no reason why our profession should not do likewise, having regard always, of course, to the patient's circumstances. One thing is certain: so long as we consent to degrade the noblest of pursuits to the level of a trade, so long will a certain class of the public persist in looking on us as if we were tradesmen, whose "bills" require as close scrutiny as those of their grocers and butchers.

I am, sir, yours, etc.,

A. L. CARROLL.

NEW BRIGHTON, Jan. 11, 1880.

THE SIZE OF BLOOD-CORPUSCLES.—A letter upon the above subject, from Surgeon J. J. Woodward, U. S. Army, will appear in our next issue.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 11 to January 17, 1880.

TAYLOR, B. D., 1st Lieut and Asst. Surgeon. Assigned to temporary duty at Governor's Island, N. Y. H., as assistant to the attending surgeon at Div. and Dept. Headqrs., and to the Post Surgeon, Ft. Columbus. S. O. 7, Dept. of the East, Jan. 12, 1880.

Changes in the Medical Corps of the Navy during the week ending Jan. 17, 1880.

Asst. Surgeon W. G. G. WILSON to the Naval Hospital, New York, as the relief of Asst. Surgeon M. H. Crawford, detached and waiting orders.

Asst. Surgeon M. H. DRAKE, to the Naval Hospital, New York.

P. A. Surgeon D. O. LEWIS, detached from the Receiving Ship Independence, and ordered to the "Jamestown," at Alaska.

P. A. Surgeon, T. H. TEMPLE, ordered to the Receiving Ship Independence, Mare Island, Cal.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 17, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small pox.	Yellow Fever.
Jan. 10, 1880...	0	7	51	3	283	42	0	0
Jan. 17, 1880...	0	5	45	5	226	35	0	0

MEDICAL SOCIETY OF THE STATE OF NEW YORK.—The next meeting of the State Medical Society will commence on Tuesday, February 3d, and continue till Thursday noon. It is hoped that opportunity will be afforded for crisp and thorough discussion of the material presented.

Papers or remarks have been promised from Doctors Potter, Batavia, on "Rectal Alimentation;" W. S. Ely, Rochester; John Vedder, Saugerties, "Hygiene;" E. M. Moon, Rochester, "Colles's Fracture;" Theo. Dimon, Auburn, "Necrology;" G. E. Benson, Hudson, "Ovariotomy;" Caleb Green, "Biographical Sketch of Dr. H. N. Eastman;" G. H. Fox, New York, "Vascular Nævus;" D. B. St. John Roosa, New York; J. C. Peters, New York, on "Prevention and Stamping Out of Certain Zymotic Diseases;" Elisha Harris, New York, on "The Domestic Pestilences: a Practical View of Etiological Facts, Medical Experience, and Public Health Duties in regard to Diphtheria, Scarlatina, Puerperal Fever, and Small-pox with Reference to the Sanitary War against them;" J. Marion Sims, "Thomas Keith and Ovariotomy;" Alex. Hutchinson, Brooklyn, "Forced Alimentation;" Lewis A. Sayre, New York, "Practical Demonstration of the Latest Improvements in the Treatment of Lateral Curvature;" Thos. R. Rooley, New York "After-treatment of Cataract;" W. C. Wey, Elmira

'Perityphlitis;" Fred. Hyde, Cortland. "Tapping the Abdomen;" John C. Shaw, Brooklyn. "Demonstration of the Pathological Anatomy of the Spinal Cord;" L. D. Bulkley, New York, "Management of Infantile Eczema;" A. Van Derveer, Albany, "Typhlitis and Perityphlitis;" B. L. Hovey, Rochester, "Fractures and Injuries of Knee-joint;" N. Nivison, Burdette, "Physiology of Opium-poisoning;" J. R. Leaming, New York, "Endemic Pleuro-pneumonia as appearing in New York for the Last Ten or Twelve Years;" C. C. Gay, Buffalo, "Refracture for Correction of Deformity;" J. W. S. Gouley, New York, "Cystorrhagia;" Jno. C. Dalton, New York; A. M. Phelps, Jefferson City, "New Treatment of Empyema;" Geo. F. Shrady, New York, "Subperiosteal Resection of Humerus, with Reproduction of the Bone;" E. N. Chapman, Brooklyn, "Mercurials in Congestion and Subacute Inflammation of the Stomach and Duodenum;" Jno. P. Gray, Utica; Alfred C. Post, New York, "Certain Unusual Deformities of Fingers and Toes;" F. R. Sturgis, New York, "Notes on So-called Galloping Syphilis."

Slow Pulse.—Dr. W. Hamilton Naylor, of this city, writes: "In a recent issue, I find a few cases relating to slow pulse mentioned.

"Rowell, the well-known pedestrian, had a normal pulse of 48, and no cardiac disease.

"During his two great feats of endurance in this city, when I was his professional adviser, I never found it to exceed 50, with one exception, viz., on the evening of his finishing his last race, when it indicated 52.

"At the time of his illness it fell to 22."

Editorial Change.—The term of four years having expired for which Prof. Wm. H. Byford was elected to the senior editorship of the *Chicago Medical Journal and Examiner*, he has declined a reappointment, and Dr. J. Nevins Hyde is now senior editor in his stead. Dr. Hyde is the man to fill the vacancy, and we congratulate him accordingly, or rather the *Chicago Medical Journal*.

The New York Pathological Society—Officers-Elect.—At the annual meeting of the Society, held January 14, 1880, the following officers were elected for the ensuing year: President, Dr. T. E. Satterthwaite; Vice-President, Dr. George L. Peabody; Secretary, Dr. George F. Shrady; Treasurer, Dr. J. H. Hinton; and Editor of Transactions of Society, Dr. John C. Peters.

The New York Academy of Medicine and the "Loving-Cup."—A beautiful and costly silver cup was presented to the Academy at its meeting, January 15th, on behalf of Mrs. John Jacob Astor, as a testimony of her respect and esteem for its Fellows, and with the hope, on stated occasions, "that it may procure a moment's pleasure to those whose days hold, necessarily, so large a measure of care and sacrifice." A full report of the proceedings will appear in our next issue.

The High Potency Question.—We quote from an article in the *American Observer*, a homœopathic journal, an endorsement of certain recent homœopathic investigations on the subject of high potencies: "Dr. Samuel Potter has very clearly shown, in his admirable and unanswerable argument, that chemistry is unable to furnish proof of the material presence of the medicine beyond the *third* attenuation; that the spectroscope gives no evidence beyond the *fifth*; the microscope, none beyond the *seventh*; and that the theory of molecular magnitudes (mathematical demonstration) stops at the *eleventh* centesimal dilution. Science, therefore, fails to demonstrate the possibility of the presence of the drug in any higher attenuation than the tenth or eleventh.

The Alkaline Theory of Yellow Fever.—In an addendum to the report of the yellow fever commission, published in the *National Health Bulletin*, Dr. Charles Finlay presents the following considerations to support the view of a probable connection between the prevalence of yellow fever epidemics and atmospheric alkalinity:

First. The high figures of atmospheric alkalinity in Havana coincide with the greatest intensity of yellow fever in that city.

Second. In the pathology of yellow fever it has been found by Dr. Blair, and since verified by other observers, that the blood, the breath, the perspiration, and the vomited matters (at certain periods of the disease) are markedly alkaline, owing to the presence of an excess of volatile alkali.

Third. Some of the most remarkable symptoms of yellow fever bear a strong analogy to those of gradual intoxication by volatile alkali, such as ammonia; *e. g.*, hemorrhagic tendency, scorbutic condition of the gums, albumen found (*post-mortem*) in the urine, gastric irritability, as observed by Dr. Richardson (on the coagulation of the blood), Christison (on poisons), Orfila, and others.

Fourth. The poison of yellow fever is considered by such an authority as Dr. Parkes to have existed in some cases in sewer-air, whereas Odling's observations show that the putrid substance in sewer water appears to be allied to the compound ammonias, and contains less carbon than ethylamine and more than methylamine, thus corroborating the conjecture that the yellow fever poison may itself consist in such a chemical compound, for the development of which an ammoniacal condition of the atmosphere may be considered as a highly predisposing, perhaps essential circumstance.

Fifth. Among the disinfectants recommended against the yellow fever infection, only acid substances are mentioned, and the most efficacious is believed to be nitrous acid fumes, as would also probably be the case in the supposition of a volatile alkali being the agent to be destroyed.

Sixth. Finally, the various empirical treatments practised in the West Indies by non-professionals have always had oily and acid substances for their foundation, just as if the object in view consisted in saponifying or neutralizing some alkaline poison introduced in the system.

Tetanus following Abortion.—Dr. W. G. Frost, of Danversport, Mass., writes: "I offer the history of the following case as one comparatively rare: I was called, June 18th, to see Mrs. S——, Irish, 35 years old, mother of twelve children, and found her nearly moribund from excessive hemorrhage attending an abortion at three months. By the use of the tampon, ergot, and stimulants, she rallied without difficulty. The next day she was very much improved, but absolutely refused to allow me to remove the tampon, or in any way to ascertain her condition. Argument, persuasion, and attempts to frighten availed nothing. The following day she told me everything was all right; but of this I had, and could obtain, no proof. Advising proper care, and rest in bed for a week, I left her. She was about the house the 21st; did the cooking for her family the 22d and

23d, and on the evening of the 24th I was called to see her. On the morning of the 25th the jaws were firmly set. During the day the whole body became rigid, and when raised by the shoulders she rested on her heels. She died on the morning of the 26th, exactly three days after her abortion. Her mind was clear to the last. Treatment availed nothing, as the chloric nately rejected everything but the mildest measures."

CHEMICAL ASSOCIATION.—At a recent meeting of the Philadelphia Academy of Natural Sciences, Dr. A. J. Parker stated that Dr. Mills had lately found, while examining the brain of a white person, that the central fissure ran completely into the Sylvian fissure, without any bridging convolution. This was the third record of such an occurrence, and had an important bearing upon the morphology of the convolutions. Bischoff's theory regarding the arrangement of the fissures and convolutions was criticised in this connection, and the opinion was expressed that the fissure of Rolando must be assigned to position with the frontals.

VIABILITY OF THE FŒTUS AFTER THE DEATH OF THE MOTHER.—Dr. Robert P. Harris, reviewing this subject in the *American Journal of Medical Sciences*, states that there are reasons for believing that, under some peculiar and exceptional circumstances in which the condition of the fœtus resembles, perhaps, that of hibernation, the life of the infant is prolonged in the womb of the dead woman for one or even two hours. Beyond this he is not prepared to go. A very large proportion of cases operated on five or ten minutes after the death of the mother will prove to be failures. Dr. Harris is of the opinion that the operation of Cæsarean section, for removal of the infant, is done in the United States much oftener than is supposed.

A CASE OF RECURRING FIBROID.—A case of "recurring fibroid," or, as it is now called, myxosarcoma, is related in the *New York Medical Journal* for December, and is interesting for the length of time during which the tumor lasted, and the number of operations which the patient underwent. The patient was born in 1822, and first noticed the growth in the back near the dorsal portion of the spine when he was 16 years old. It was first removed in 1839 by Dr. Knight, of New Haven, without, of course, the use of an anæsthetic. It was not entirely taken away, and the operation was performed again in about six months. Eight years later the tumor had recurred, and was evidently involving the spine, as partial paralysis was produced. It was removed, and the paralysis almost entirely disappeared. After this date the tumor reappeared, causing more or less paralysis, and was removed, with great relief to the same, about every five years. The patient was operated on, in all, twelve times, the last time with no relief. Two months after the last operation, in July, 1878, he suddenly became quite ill, and died with symptoms of acute pleurisy. On post-mortem the tumor was found to have invaded the pleural cavity, where it was the size of a double fist, and had set up an inflammation and effusion.

IMPROVED METHOD OF TREATING NEWLY-BORN CHILDREN.—Dr. W. J. Craigen, in the *Philadelphia Medical and Surgical Reporter*, relates his method of treating new-born children, which has some marked peculiarities. He says: "In my treatment of the infant it is not washed; it is not dressed; it is not fed; it is not bandaged; its umbilical cord is not compressed." He rightly remarks that this method may appear novel to the mass of physicians. He adopts it because he thinks that the prevalent treatment exposes the infant too soon to the cold, and brings about too sudden a change in its environment. Dr. C. rubs the child over with lard, wraps it in flannel, and does not have it washed for twenty-four or thirty-six hours.

REPORT ON PROGRESS OF THE ADOPTION OF THE METRIC SYSTEM.—The committee appointed by the Kings County Medical Society to examine into the movement to secure the general adoption of the metric system have made their report. They announce that during the past year the system has been endorsed and adopted by the New York State Medical Society, the New York County Medical Society, and the American Medical Association. The British Medical Association appointed a committee to report on the means of introducing the system into Great Britain. The Medical Section of the French Association for the Advancement of Science, and the International Medical Congress at Amsterdam, recommended the general adoption of the system.

The committee presented resolutions for the adoption of the system by the Kings County Medical Society. No action has yet been taken on the report.

WOOL-SORTER'S DISEASE.—A recent death from this disease, at Shipley, England, has called attention to what is still an obscure affection. It has been known for some time that workers in alpaca, mohair, camel's hair, and dry Eastern woods, are subject to sudden and often fatal attacks. In the case lately reported the man had complained for several days of the noxious character of the wool; he was finally taken with what was thought to be a severe cold; evidences of congestion of the lungs followed, and in four days he died. The cause of death in these cases is evidently some poisonous exhalation from the wool. Dr. Bell, of Bradford, England, who has had considerable experience in the disease, believes it due to living organisms from the fleeces of animals that have had anthrax. He states that it can be communicated from man to animals, and that myriads of bacteria (Bacillus anthracis) may be found in a drop of blood after death. The disease can be easily prevented by heating or steaming the wool.—*Lancet.*

THE ELECTRIC LIGHT PERFECTED.—There are various reasons, as we shall presently show, for causing the medical profession to take a deep interest in the progress of Mr. Thomas A. Edison's labors to perfect the electric light; and, in view of the conflicting opinions expressed by the daily press and some scientific authorities, we have taken steps to present our readers with a reliable statement of the actual results obtained by Mr. Edison, prepared by one of our staff, who made a personal investigation at Menlo Park on behalf of the MEDICAL RECORD.

The form of the new electric lamp is very simple, and can be well understood without diagram. It consists of a glass globe two inches in diameter, and a glass tube four inches long and one inch wide, tapering towards the bottom. The globe is attached to the top of the tube, which, in its turn, is fastened to a burner. The interior is also very simple and devoid of all mechanism. In the globe is seen a loop of paper carbon, the thickness of stout black cotton, supported by two metal standards.

To use the lamps, they are placed in little cups, which replace the gas nib on the chandeliers, and are dropped in as a glass stopper in a bottle. There is no trouble of tying wires, as it is so arranged that the act of placing the lamp in position at once con-

jects the lamp with the central station, where the electricity is generated.

This new form of electric light, as seen by us, burns with a steadiness which appears almost absolute. In four hours it was observed to make but one movement, which was instantaneous, and as new generators were used for the first time, which had never been tested, perhaps this single instance was caused by some change of the machinery at the central station.

Each lamp is arranged to give the same quantity of light as an ordinary gas-burner, but from our observation the illuminating effect was increased, due apparently to the great dispersive power of the light and its purity. All parts of the room are equally illuminated, and the general effect is that of a room lighted with a good supply of the best gas. With opal shades on the chandeliers, with the new electric light it would be barely possible to decide if gas was used or not.

When used without shades, and held within a yard of the face, it can be stared at for many minutes without any discomfort to the eye, and appears as grateful to that organ as the light of a wax candle.

Our investigation extended to viewing it as used for domestic purposes in Mr. Edison's house, where, in the parlor, two chandeliers with four burners were doing duty; also in a cottage, where one lamp illuminated a room about 12x16 feet. In the laboratory we saw it hitched on to conducting wires running in various directions, and in the factory and workshops as bracket lights. Lastly we observed it as an outdoor illumination, taking the place of gas in ordinary street-lamps.

In one word, the results were in all cases uniform and satisfactory, and the great blazing electric light, with which our minds associates that illumination, was seen toned down to the sober limits of an ordinary gas-jet, diffusing a soft and beautiful light of great dispersive power.

Thus Mr. Edison clearly demonstrated to us that he had solved the question of subdividing the electric light, and had produced an electric lamp suitable for domestic use. The equally important points of the permanency of the paper carbon and the ultimate cost of generating electricity still remain undecided. Experiments with the new electric lamp apparently lead to the conclusion that it is sufficiently permanent for practical purposes. Two lamps have been used, with short intervals, for fourteen days, burning day and night; one lamp was maintained for seven days and nights, with one interval only. We give full weight to the fact that the new electric lamp has been invented but a few weeks, and our surprise is great that it works so perfectly at the start. This appears to show that the principle is right, and if that is so, the rest will follow. We regard the item of cost as one of the least difficulties, because if steam produced by the combustion of coal is too expensive for generating electricity, the now wasted energy of tidal rivers and running streams may be available.

This, the last and most important of all Edison's discoveries, will be of the greatest benefit to the medical profession. By simply attaching a couple of wires to the chandelier, the new electric light may be placed in any position most convenient during clinical examinations; may be held in the hand in close proximity to the patient without fear of fire, heat, or unpleasant odor. The lamp may also be fixed to the back of a chair in any part of the room.

A motive power is also provided, always ready for use, and will be found convenient for many professional uses, and may lead to the introduction of new and valuable instruments and surgical appliances.

The hygienic value of the new electric light will be appreciated by those in charge of hospital wards and large establishments, in which a number of persons are congregated. The contamination of the atmosphere by sulphurous fumes of gas will no longer be feared, and, with moderate precautions and suitable ventilation, the air of hospital wards may be maintained in a pure and satisfactory condition.

Medical Charity and what Comes of It.—"Having, in a long time of practice, both from choice and necessity, done a great deal of gratuitous service, I have yet to find a single case where my charity work was appreciated. Those who pay nothing always offset it by liberal abuse, which keeps away those who would pay. Your charity ease may be a worthy man, but if you were making a struggle to build a house, would he work for you at reduced rates (or for nothing)? It is the doctors themselves, who allow their kind feelings to overrun their judgment, that are responsible for this wholesale robbing to which every doctor in this land is subjected. We deal with the most afflicted; so does the undertaker, who is not expected to work for nothing. We can maintain no rights that we weakly yield to extortion.

"The doctors are most universally regarded as rich persons who ride about for exercise, and practise for philanthropy, to be paid if everything turns out lovely; if not, they can go to the d—l and must not complain. The people who pay are always grateful; the thieves are like other dead-beats, abusive and always most exacting and querulous. . . . If the patient cannot pay for what might save his life, his friends or the public should. It is easier for the town to shoulder the cost than two or three poor devils who had the bad luck to study physic. Now or never is the time to put ourselves on the same footing with other businesses, and, as we have the same losses, we must ask for the same gains."—*Canada Lancet.*

The Cure of Consumption.—There seem to be grounds at last for hoping that a really effective curative agent against consumption in all its forms has been found. Professor Klebs, of Munich, some time ago, calling attention to the large number of internal diseases known to be caused by infection, classed among them tubercular diseases. Dr. Max Schneller, of Greifswald, being interested in the subject, tried several experiments, and having produced tuberculosis in two groups of rabbits, subjected one group to the ordinary treatment, and put the other for several hours daily "in a box filled with the vapor of a solution of what the Germans call 'benzöesaures Natron.'" The former group died, the latter recovered perfect health. Professor Rokitansky has since tried making his consumptives at Innsbrück inhale similar vapors daily. The results are said to have "far surpassed his hopes," and high medical authorities are of the opinion that at last a real advance has been made in solving one of the most important and difficult of modern medical problems.

Testing High Potencies.—At the meeting of the Homœopathic Association at Lake George, last summer, a member volunteered to prove the power of high dilutions by the following test: a number of bottles should be given him, all containing alcohol, and one in addition containing the fifteenth dilution of a certain drug. The doctor asserted that he could

tell which was the medicated bottle by its effects upon the system, and he agreed to undertake the experiment.

At a meeting of the Pharmaceutical Committee of the American Institute, it was voted that the doctor's proposal be accepted and the test made. A committee was appointed containing the names of such men as Dr. Chemeray and Professor Chandler. At the last moment, however, the courage of the experimenter failed him, and he sent word that the pressure of business would not allow him to attempt the experiment. The scientific world, therefore, still remains in a state of depressing uncertainty as to the physiological effects of the fifteenth dilution.

Mistaking a Traumatic Aneurism for Abscess.—A somewhat remarkable case has recently occurred in Chicago, and there attracted much attention. On about the 1st of October a young man, named John Conroy, was shot in the face. Dr. E. W. Lee was called in, and found a wound under the right eye. The patient's jaws were firmly locked; there was much pain and some fever, and swelling of the glands on the right side. The wound was not probed, but treatment was directed towards allaying the inflammation. The man gradually improved, and at the end of a week went out to his business. In another week he returned to Dr. Lee, much worse, and unable to speak or swallow. On examining the mouth, a tumor, the size of a hickory-nut, was felt on the hard palate. It felt hard. An exploratory incision was made, which let out some blood-clots, but no hemorrhage followed, and a free incision was then made in hopes of finding the bullet. Immediately, upon doing this there came more clots, and then a stream of bright arterial blood. An attempt was made to arrest the hemorrhage by filling the cavity with a piece of cloth; but the man struggled so violently that it was impossible; the blood issued from his mouth and nose, and he died immediately.

The post-mortem showed that the bullet had passed down to and pierced the internal carotid about three-quarters of an inch below the carotid foramen. A large cavity filled with blood-clots was connected with this opening.

When the case was brought before the coroner, Dr. Moses Gunn testified that Dr. Lee's treatment of the case was a perfectly proper one. Also that there was scarcely any possibility that the man could have lived long in any event. Dr. Fenger, who made the autopsy, testified still more positively than Dr. Gunn that the aneurism must within a few days have made a spontaneous opening, as pus had already appeared among the glands of its lower part. Drs. Dunne and Hobbs testified in the same way.

The jury rendered a verdict entirely exonerating Dr. Lee, and stating that under the circumstances he was perfectly justified in making his opening incision. This seems to have been the view generally expressed among the medical men. The friends of the deceased, however, have shown much excitement over the verdict, and have threatened both coroner and jury.

New Method of Preserving Dead Bodies.—The German government has recently bought the patent for a new preservative fluid. It is claimed for it that the bodies, even after years, retain their color, form, and flexibility. Decay is entirely prevented, and the muscles even keep their natural color.

The bodies are saturated in a liquid made as follows:

℞ Alum	100
Sodii chlorid	25
Potassii nitrat	12
Potassii carb	60
Acid. arsenici	10
Aquæ	1000

This solution is cooled and filtered. There are then added to ten litres of the fluid four litres of glycerine and one litre of methylic alcohol. From two to five litres of the liquid are used in saturating the body to be preserved.

Calomel vs. Hydrargyrum cum Creta.—I have been reading the communication of Mr. E. Merlett Boddy on the advantages of calomel as a remedy in some of the diseases of childhood. I write now a few lines to express my entire concurrence with the author in his disapproval of the well-known powder of mercury with chalk. As a means by which the system may be gradually saturated with mercury, small doses of mercury and chalk-powder are doubtless very effectual; but, as a cholagogue to induce secretion from the duodenum and liver, I believe a far more certain medicine is found in calomel. One grain of calomel triturated for some time with twelve grains of sugar of milk forms a very active cholagogue powder when administered in a dose of one or two grains. The well known blue-pill also may be dependel upon for cholagogue action, especially if the pill-mass be of some age, so that a small quantity of the suboxide of mercury has been developed in it. Metallic mercury, "killed" by minute trituration with sugar of milk, forms a gray powder that can be easily prepared in the same way as the hydrargyrum cum creta, and, so far as my experience goes, is a preferable medicine. Hydrargyrum cum magnesia I have also tried in one case, but have nothing special to report of its action. I give a decided preference to calomel and blue-pill as the best forms for obtaining the cholagogue action of mercury. The practice of frequently administering small doses of hydrargyrum cum creta with a view to correcting secretions is objectionable, as its tendency is gradually to impregnate the system with the mercury, and so produce irritability and anæmia.—*John C. Thorowgood in Medical Press and Circular.*

Sudden Death of Pilots. Two cases of sudden death of pilots, while at the wheel, have been recently reported. One was an officer on a Mississippi steamer; the other, pilot of the Union Ferry Company's ferry-boat *Fulton*. The cause of death in both cases was disease of the heart. These occurrences should make the people insist that there be two men in the wheel-houses, and that there be a physical examination of all the employees. This latter can be had without expense, by applying to U. S. Marine Hospital officers.

Royal Medical and Chirurgical Society's Library.—This society has recently finished a complete catalogue of its library, making a work of three large volumes. The library now contains 31,000 volumes. In the catalogue both authors and subjects are indexed—a peculiar feature being that the names of works are arranged in chronological order. —*Lancet.*

New Amphitheatre at La Salpêtrière.—Professor Charcot has had a new amphitheatre built at La Salpêtrière, and it was recently opened by himself. He delivered an eloquent address before an audience of over 500 students.

Original Lectures.

A CASE OF EXTRA-UTERINE FŒTATION,

A Clinical Lecture delivered at the Hospital of the University of Pennsylvania, Philadelphia.

By WILLIAM GOODELL, M.D.,

Professor of clinical and didactic gynæcology in the medical department of the university of pennsylvania.

(Reported for The Medical Record.)

I have to-day a case of exceeding interest and rarity—a woman presenting the phenomenon of extra-uterine fœtation. What do we understand by such a term? Extra-uterine fœtation is an error in the position of the fœtus, which develops outside of, instead of within the womb. There are probably three varieties of extra-uterine fœtation: (1) the *tubal*, in the Fallopian tubes; (2) the *ovarian*; and (3) the *abdominal* or *ventral*. Under the first head we have the (a) *tubo-ovarian* pregnancy, in which the germ is arrested in the pavilion which forms adhesions with the ovary; (b) the *tubo-abdominal*, in which the germ is also arrested in the pavilion which forms adhesions with neighboring abdominal organs; (c) the *tubal* proper, in which the germ is arrested between the pavilion and the uterus in the tube; and (d) the *tubo-uterine*, in which the ovum is arrested in that portion of the tube which traverses the uterine wall. Under the second head there is: (a) the *ovarian* proper, in which the germ is contained in the ovary, that organ remaining free from adhesions; and (b) the *ovario-tubal*, in which the ovary containing the germ contracts adhesions with the pavilion of the tube. Coming to the last head of *ventral* or *abdominal* pregnancy, we have the *primary* (in which the ovum is developed from the outset in the peritoneal cavity), and the *secondary* (in which the development commences in the tube or ovary, the cyst ruptures, the ovum escapes, and continues to live and develop in the peritoneal cavity).

The late Dr. John Parry thus classified 500 cases of extra-uterine pregnancy which he was able to collate:

Tubal.	The ovum being developed in the tube proper	149	214
	The ovum being developed in the pavilion: the tubo-ovarian and tubo-abdominal varieties	34	
	The ovum being developed in the uterine portion of the tube: "interstitial" or tubo-uterine pregnancy	31	
Ovarian			27
Abdominal (primary)			29
Doubtful			20

It is very easy to understand how an ovum may be impregnated in the ovary or in the Fallopian tube; but, when we come to consider abdominal pregnancy, it is not so plain. I have just spoken to you of two varieties of abdominal or ventral pregnancy, but must tell you that there is a question as to whether such a thing as a primary abdominal pregnancy is possible, *i. e.*, whether an ovum has ever dropped into the abdomen in the beginning, and formed adhesions there. The presumption is certainly against it, since there is no stroma for attachment; but, that such a thing both may occur and has occurred—in other words, that the ovum may fasten itself to the intestines or walls of the abdomen, though well-nigh incredible, would seem to be demonstrated by a few substantiating cases.

The great majority of extra-uterine gestations occur in the tube. Such cases are, as a rule, exceedingly fatal. The fœtus will possibly go on developing, and may reach its sixth or eighth week, when the physician is suddenly called in and finds the patient in a collapse, consequent upon a rupture of the tube from overstretching of its muscular fibres. I say that, as a general rule, tubal pregnancies are fatal; but, when the pregnancy is ventral, the woman will often go to full term.

The phenomena of extra-uterine pregnancy are peculiar, and yet the diagnosis is most difficult. About the first symptom with which we meet are colicky pains, which are likely to be excessively severe, and which are generally attributed by the patient to an effort at menstruation. These pains may be due to expansion of the tube or cyst. Sometimes they are almost as severe as the pains of peritonitis. Their cause does not seem to be well understood.

The next symptom is the arrest of menstruation. In this connection I may call your attention to the fact that membranes will be discharged from the womb which are likely to mislead the medical attendant into regarding the case as one of abortion. The growth of these membranes has been explained to be due to the fact that the jealous womb acts as if it were pregnant, and thus forms a false decidual membrane, which comes away in a hemorrhage or in the form of a sac. Later still there may be a second discharge—which the patient will tell you was a miscarriage—in the course of which a still greater amount of membrane may come away, either in bulk or in fragments. This second discharge generally means that the cyst is about to burst. Its cause remains a mystery.

The great ease with which the prominences of the fœtal body can be distinguished through the abdominal wall, the distinct placental bruit, and the tic-tac of the fœtal heart, are of great assistance in diagnosing these extra-uterine conceptions.

The causes of extra-uterine pregnancy, though obscure, would seem to be numerous. It sometimes occurs in women who have gone seven or eight years without conceiving. Why this is so, I am not able to say. Again, any obstruction, such as cancer, or a fibroid tumor, which prevents the passage of the ovum into the uterus, is set down by some as an occasional cause of the condition which we are discussing. Still other authorities assign emotional causes, such as the sudden opening of a door upon the act of illicit coition, or the influence of fright, or strong passion at, or near the time of coitus, when, as a result of a spasm, the ovum may escape into the abdomen. Extra-uterine pregnancy is occasionally a result of coition had during menstruation. Once or twice it has been known to follow pelvic peritonitis.

Some years ago a distinguished physician was attending a lady residing in West Philadelphia, for what he supposed to be an attack of pelvic cellulitis. Though the treatment pursued was vigorous, a month elapsed without any improvement in the symptoms. I was then called in consultation. I examined the patient carefully, and found the vagina tense and excessively tender to the touch. I diagnosed the case to be one of pelvic peritonitis. Two months more passed by, when the late Dr. Parry, who had also been called in, came to me and said, jokingly, "Doctor, you have made a bad blunder! The trouble is merely normal pregnancy." Nevertheless, I knew there was something *abnormal* in the case. I again visited the patient, and had barely begun my examination when suddenly it flashed upon me: "What

I have here is a case of extra uterine fœtation." I felt the head of the child bulging into the vagina. I suggested an operation, but the family objected. The child died shortly, and the mother perished. Here was an instance where three separate physicians were each and all of them deceived. Since then I have seen two other cases of the same character. One of these cases was a ventral fœtation to which Drs. Diner, Wallace, Parry, and myself were called in consultation. We made up our minds that an operation was the last thing that could be done; but the husband, who was devotedly attached to his wife, would not hear of our attempting it unless we would promise him that her life would be saved by it. This, of course, we could not do, and so the operation was not attempted, and the patient died.

This patient is a hunchback, who has been married three years. She is 30 years of age. I saw her first on the 7th of last October, and will read you an abstract of my notes taken at this visit. Two years ago she missed her catamenia for two months, and had a supposed miscarriage. She saw her last monthly in April last, which was normal in amount. On May 16th she had a slight flow, and then missed until the last of June, when she had a flow for a day, and lost a "piece of flesh" as large as an egg. From July 6th to July 12th she had a flow of black blood. Since then she has seen nothing. The introduction of the sound gives a measurement of four inches, and shows the womb to be in its natural position. To the left of the womb and closely adherent to it, is a large tumor filled with fluid and containing a solid body, movable by *ballottement*. The placental bruit can be heard distinctly on the left side. There is no milk in the woman's breasts, but the areolæ have darkened. The cervix uteri is small, but the os is soft. The patient has dysmenorrheal cramps every day, "as if her monthlies were coming on." The tumor alternately contracts and relaxes. The presence of muscular fibre would seem to point in the direction of a tubal pregnancy. But, as the patient is in her ninth month, such a condition would be very rare. If the pregnancy were ventral, we should not have any muscular fibres present, nor would we in the case of an ovarian pregnancy. I may be in error in regard to this point, but for the life of me I cannot see how it can be anything else than a tubal pregnancy. Still, I never saw a tubal pregnancy progress so far. To return to our history: when contracted, the upper margin of the tumor lies two fingers' breadth below the umbilicus.

November 4th.—No further changes have occurred, except that the woman's abdomen is larger in girth and her areolæ are darker.

December 4th. The womb is on a level with the umbilicus; the cervix is pushed backward by a tumor filling out the vagina. The sound gives a measurement of 3½ inches toward the sacrum. No heart-sound can be heard, but fœtal movements can be felt by me and by the woman.

Early in the present month the patient sent for me, and as the woman was living in a small room in a third story, back building, where there were no facilities for an operation, I had her moved to the wards of this hospital.

Her condition this morning is as follows: the placental bruit can be heard on the left side. The fœtal heart-sounds can be distinguished between the linea alba and the crest of the ilium. It looks exactly like a normal pregnancy, except that the cervix is very high up. Taking May 16th as the date of the conception, she ought to be confined on the 16th of next month. It is very hazardous to allow such cases to go to full term, for then a spurious labor sets in, and the child dies. Why this is so I cannot say, but I think it was the celebrated Avicenna who said that pregnancy went to nine months, and then "labor set in by the grace of God." The danger, of course, lies in the septic absorption following the death of the child.

I am examining the woman to-day, I find pronounced tenderness on both sides of the abdomen, but very little fluid present. The woman is fully eight months gone, but the size of the tumor is not that of an eight months' child. It only reaches a little above the umbilicus, whereas it ought to reach to the ensiform cartilage.

There are two points which strike me with particular force in my examination of the case: (1) That the cyst containing the fœtus has but very little water in it; and (2) that the child is unusually small. These conditions are generally present in all cases of extra-uterine fœtation.

I have gone over the case with great care, but we are all very liable to make mistakes. Indeed, the celebrated Dieffenbach once had a case which was brought to him by Dr. Busch of Vienna, who had diagnosed extra-uterine fœtation, and, in the presence of thirteen members of the hospital staff, Dieffenbach opened the abdomen to find *nothing*.

To try and preclude every possibility of mistake, I will introduce the sound and see what measurements it will give. I find the os higher up than is customary, not so soft and not so large as we usually find it in normal pregnancies. In front of the os I find a hard tumor, which is no doubt the head of the child.

I pass the sound, running the risk of rupturing the membranes, if any there are to rupture in the womb, and, dropping my hand as low as possible, get a measurement of four and a half inches. If there were a fœtus inside of the womb I should certainly have ruptured the membranes in the course of these manipulations. The womb is somewhat distorted, so that I cannot get its full length. I find that I cannot turn the sound in the womb, which I know I could do if the womb contained a bag of waters.

Let us look at the woman's breast. I was able to squeeze some milk out of one of them the other day. Yes, there is milk in both of them now. The follicles of the left breast seem to be somewhat enlarged.

The dysmenorrheal pains, which she complained so much of early in the course of the pregnancy, have been relieved. These pains are generally greatest when the fœtus is smallest.

What do I purpose doing? I would much rather wait and let the child die. In attempting Cæsarean section before the death of the child, there is great danger of hemorrhage from the placenta; there being no contractile tissue where the placenta is planted on the left abdominal wall, any effort to remove the placenta would certainly be followed by the death of the mother. But the mother is so anxious that the child should live that I have determined to perform the operation in a few days. I shall use Pacquelin's *thermo-cautère* in making the abdominal section. After I have removed the child I shall tie the cord, cut it and drop it into the abdominal cavity. I shall stitch the edges of the cyst to the edges of the abdominal wound and leave the placenta untouched. Though the danger to the woman, both from exhaustion and hemorrhage, will be great, I shall try to save two lives.

Although I have done everything to strengthen my

diagnosis and to remove all possibility of error from it, I am yet in some perplexity. Is it possibly not a case of extra-uterine pregnancy? My repeated examinations with the sound would seem to render this provoking alternative impossible. Still, there is so much muscular structure in the walls of this cyst that it cannot be other than a tubal pregnancy, and a tubal pregnancy is a very rare occurrence. My friend Dr. R. P. Harris, whom I have invited here to-day because he knows more about the subject than any living man, tells me that if it does so turn out, this will have been the *third case* on record in which a case of tubal pregnancy has gone to full term. Perhaps it is a case of double womb, or of a double-horned womb. I wish I could be positive about the fact. At any rate, my first incision next Sunday shall be an exploratory one.

NOTE.—A week later Dr. Goodell stated that, having become deeply impressed with the idea that the alternate expansion and contraction of the tumor meant unstriped muscular fibre—that is to say, uterine tissue—he had, very fortunately, concluded to await developments. His patient fell into labor four days later, and was delivered of a small living child *per vias naturales*. He afterwards very carefully examined the womb, and found it to be a *uterus bicornis*, or a two-horned womb. In one horn the ovum had developed; into the other he had passed his sound.

REMARKS UPON A CASE OF SIMPLE ANÆMIA, AND UPON ONE OF TUBERCULAR PHTHISIS,

WITH MODERATE CARDIAC HYPERTROPHY AND RECURRENT ATTACKS OF HÆMOPTYSIS.

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GENTLEMEN:—The first case I shall bring before you to-day is not so interesting as I had reason to believe ten days ago; still, as even the most simple cases are sometimes the most instructive, so I am encouraged to make remarks about what is an instance of profound simple anæmia, which appeared to me, I confess, when I requested this patient to come here, an example of progressive pernicious anæmia. An abstract of this girl's case reads as follows: L. K., seventeen years of age, seamstress, residing in New York City, complains of breathlessness upon the slightest physical exertion. She suffers constantly from vague pains in her chest and from severe headache. Her appetite is capricious; sometimes she eats tolerably well, and again she does not care for her meals. She has no ambition to go through with her daily tasks, but simply feels unable to do any work at all. Formerly she had a healthy color and her cheeks were rosy. During the past two months she has been constantly ailing, and is always inclined to sleep. Her lips are blue, and every one says she looks as if she had no blood in her veins. For several weeks past her face has had a swollen appearance. After eating, she is distressed at times with nausea. Her bowels are regular, with a tendency to constipation. She is extremely nervous, and any sudden noise or shock affects her most disagreeably. She has painful palpitations at the heart. Hitherto her menstrual discharge has been sufficient in quantity, and during her monthly periods she has been free from pain. She has never remarked any leucorrhœa. In her previous history I do not find any proof of malarial poisoning. She is well fed, lives in a healthy locality, and her daily work is not excessive. Her mother and father enjoy excellent health, and so do her brother (nine years) and sister (five years). This patient presents no localized œdema in any region, according to her own affirmation. When I come to make a careful search I find evident pitting and pressure over the malleoli. Her urine is pale in color, does not give any deposit upon standing twenty-four hours, has a slight acid reaction, a specific gravity of 1008, and, by the ordinary tests with heat and nitric acid, does not show cloudiness due to the presence of albumen. Of this urine my patient passes seventy-two ounces in twenty-four hours. Upon physical examination, I find no enlarged lymphatic ganglia either in the groins, axillæ, neck, or elsewhere. There is slight increase of size in the spleen, as shown by the extent of dulness on percussion. The liver remains within normal limits. Under the microscope the blood presented the following characters: there was decided diminution of the number of red corpuscles, which were also very light in color. Their outline was distinct and rounded, and they hung together like pieces of money. The white globules were certainly more numerous in the field of the microscope than is normal, and they were smaller than usual. My patient has never had hemorrhage from any organ. I prescribed for her January 5, 1880, as follows:

℞. Fl. extract. cascara sagrada.

S. ʒss. in a little sweetened water at bedtime, and again in the morning, if required.

℞. Pil. ferrei carb. (Vallet).

S. One three times a day, with her meals.

Now, permit me to ask what the nature of this case really is. Is it anæmia of simple type, chlorosis, leukhæmia, or an example of that singular affection, described more especially by Biermer and Gusserow in latter years under the name of progressive pernicious anæmia?

I believe we fairly exclude kidney disease by the result of the examination of the urine. There is no albumen at present to be revealed by the ordinary tests, and as the patient has not had pain in her loins, and no other symptoms which cannot fairly be accounted for by the condition of her blood, I believe we can properly eliminate it from the discussion. How about progressive pernicious anæmia? Well, I am free to admit that I had a half-formed conviction, when I first saw this patient, she was an instance of this affection. She was so very pale, she was growing weaker each day, her heart was evidently not revivified as it should be by blood with healthy elements, and over its region there was heard an intense blowing murmur, which was most accentuated at the apex. There was already evident subcutaneous infiltration of cellular tissue over the ankles, and although hitherto there had been no hemorrhage, still the constitution of the blood seemed to render it of highly probable occurrence at any time. Unfortunately for the truth of this hastily formed judgment, my patient returns to me after only ten days' interval, and is already feeling notably better by reason of the administration of carbonate of iron pills. Now, as you all possibly know, one of the means of diagnosticating so-called progressive pernicious anæmia is through the touchstone of treatment. If treatment succeeds at all, we must abandon our diagnosis, for the onward tendency, or rather march towards a fatal termination of this disease is thus obviously interfered with. But does such reasoning hold good of chlorosis or leukhæmia? Certainly not of the first; for frequently, even in intense chlorosis,

we notice rapid and marked improvement of the chlorotic condition when iron is given for a week or two. But I can scarcely admit the existence of chlorosis, properly speaking, in this girl's case: first, because there has been no menstrual difficulty; second, because her aspect has never been precisely that of chlorosis. There has been no greenish or waxy appearance, but only excessive pallor. It is true that my patient has never been notably thin, or lost flesh to any considerable degree, but, on the contrary, is quite plump. This is an aspect which we may expect to see frequently, even with marked blood dyscrasia, and is no absolute index of the good or ill health of the patient. I submit, however, that my patient has a swollen aspect of the face, puffy hands, and pitting over the malleoli—all of which show conclusively a watery and imperfect state of the nutrient fluid. Finally, has my patient true or pseudo leukhæmia? In the absence of notably enlarged spleen, of lymphatic ganglia abnormally increased in size, of tenderness over the bones of the vertebræ or limbs, I believe we may assume that it is at least doubtful. Moreover, the rough examination made by me of the blood does not settle the exact condition of that fluid. The hæmatocimetro should be employed, and the number of white and red corpuscles in a given field accurately determined. Doubtless many errors arise in this and like observations from a want of precision or exactness. There may be an apparent, or even a relative excess of white globules in the composition of the blood, and yet this appearance or fact may be due simply to the decreased number of red corpuscles present in this same fluid. It is very necessary, therefore, to make exact microscopical investigations in analogous cases; or, at all events, if the microscope be lacking, to see what the test-tube can reveal when a given quantity of blood is poured into it, allowed to stand for some hours, and then the relative volumes of red and white corpuscles and other constituents of the blood are, in a manner, determined with an approximation of accuracy.

One word before leaving this case—and that is in regard to the intensity and location of the heart-murmur. The cardiac murmur is heard at the first sound all over the precordial region, but it is especially well heard—that is to say, it is most intense—at the apex. I am satisfied that it is a functional murmur—or better, a murmur brought on by the condition of the blood; and I base my belief mainly in this instance upon the fact that there is nothing in the previous history of this patient which will justify the supposition of an organic affection of the cardiac valves or orifices. And here I wish to make a profession of faith. There are a few well-known clinical observers—and in this class, among the most distinguished ones, we find Parrot—who believe that anæmic or dynamic murmurs are at times heard with greater intensity at the apex, and not at the base of the heart, as is usually taught in our text-books. Now, I am inclined to believe that this opinion is correct. For several years past I have listened with great care, when too frequent occasions have presented themselves, not only to the hearts of patients who, though anæmic, had not latterly gone through a severe illness, but also to hearts whose vital power had been put to the test by a severe attack of acute rheumatism or other febrile disease; and in these instances I have occasionally remarked that the region of most intense transmitted cardiac sounds was the apex, and not the base. How is this explained? It is presumed that in many such instances there is a temporary dilatation of the tricuspid or mitral orifice, occasioned by a relaxed cardiac fibre, which has allowed regurgitation to take place synchronously with every systolic impulse. A certain number of autopsies would also seem to corroborate the truth of this impression. To my own mind, it is a probable hypothesis. Many a man, I am convinced, is convicted by his attending physician of carrying in his breast a ceaseless and incurable cardiac murmur, who, in the future, gets entirely rid of it. And this is true, because in instances in which valvular thickening, or puckering, or calcareous deposits in the valves or on the margin of the orifices have been learnedly determined, there in reality existed nothing more serious than relaxation of muscular tissue and slight decline of normal nerve-force. Lay these truths well to heart, and in anæmia, chlorosis, etc., as well as during the continuance of, or convalescence from, severe forms of acute febrile disease (rheumatism, measles, scarlet fever, etc.), do not be too prone to recognize the existence of endocardial murmurs, which are sure to persist forever in future.

My other case is a doubtful one, at least in so far as the cause of moderate hæmoptysis is concerned.

Here is briefly his narrative: J. H., seventeen years old; printer; born and resides in New York City. On January 9, 1880, he came under my care, and told me that a short time before seeing me he had spat up a moderate amount of red, fluid blood, rather foamy, and during an attack of cough. About three weeks previous he had had a similar hemorrhage, in which he spat up about one teacupful of pure blood. During three or four days after this first attack of hæmoptysis he continued to expectorate, at short intervals, a quantity of viscid, thick sputa, streaked with blood, which was of dark color. Prior to these two attacks he never had spat any blood. He has had a frequently recurring dry cough for two years past, with moderate expectoration. His sputa are whitish and occasionally yellow. He has had, during the last few weeks, hot, abundant perspiration during the night, but has become, in great measure, relieved of his cough. Since last summer he has lost notably in flesh, but his strength remains as usual. He has suffered latterly from stitching pains in different regions of his chest, and since he had his last attack of hæmoptysis he hears distinctly certain whistling and moist sounds during respiration, that he attributes to the passing to and fro of air through blood in his bronchial tubes. This young man is well fed, clothed, and lodged. He is continued ten hours in the twenty-four to the work of his trade. This work consists mainly in pulling the arm or lever of a printing-press with his right hand and arm, which are, of course, severely tested and frequently much fatigued. His father died at twenty-five years, but he does not know what the nature of his disease was. His mother is healthy, and is now thirty-five years old. A brother died of acute rheumatism. His only sister is grown, and enjoys good health. Some weeks ago he consulted a practitioner in this city, who informed him that he had an enlarged heart, and that he should abstain from his present active employment, and give himself a rest for a time. The patient doubts, as he remarks, the existence of any cardiac affection, because he has never suffered with his heart, never has had short breath or cardiac palpitations, and can even now run several blocks without feeling any unpleasant effects from this exertion. Moreover, upon questioning him I find there is no history of rheumatism, chorea, scarlet fever, malarial

poisoning, or, in fact, any disease which, either directly or indirectly, would be likely to give him organic disease of the heart.

Physical examination, unfortunately, not only reveals interrupted or wavy inspiratory murmurs at both apices in front, with markedly increased vocal resonance and fremitus under the right clavicle, but also a few disseminated moist râles, of medium size, over the entire area of both sides of the chest posteriorly. Besides, throughout this whole region there is augmented vocal reverberation during speech. There is, without question, some enlargement of the heart, particularly affecting the left ventricle. The apex-beat is just behind the sixth rib, but is carried considerably toward the left or outside of a vertical line passing through the left nipple. There are no cardiac murmurs, but there are feebleness and irregularity of cardiac action.

In this instance I believe there can be little doubt as to the existence of the first stage of tubercular disease of the lung. No more do I believe there can be reasonable suspicion that the diagnosis of moderate cardiac hypertrophy is not justified. But what is of interest for us to determine at present is, whether the recurring hæmoptysis be due to the incipient lung trouble or to the enlarged heart. It would seem, perhaps, at first, as though we should attribute the hemorrhage to the phthisical state, in view of its physical characters—the fact of its occurring during cough, and the presence of general symptoms which point to this interpretation as the correct one (night-sweats, emaciation, dry cough, etc.). Still, there is something to be said on the other side. The mere color of the blood cannot determine the question, because we may have a localized pulmonary congestion brought on by over-action of the heart, which would cause sanguineous expectoration, and the blood spat up under these circumstances might be very red in color. The fact even of its occurring during cough is not an absolute proof that the blood comes from a phthisical condition, because whatever blood there be in the bronchial tubes or lung-tissue, and whatever be the efficient cause of its presence there, nevertheless, in order that it be thrown off from the chest, it must almost of necessity come up during or after cough. Of course I know that mere hypertrophy of the heart, moderate in extent, and without recognizable valvular lesion, is a rare cause of hæmoptysis. But the rather immoderate physical exertion to which this boy is daily subjected, taken with his impaired nutrition and phthisical condition, would not require any very powerful additional exciting cause to set up a localized or more diffuse congestion of pulmonary structure. Evidently, if the hemorrhage is occasioned wholly by the phthisical condition, it is that sort which is due to congestion about a conglomeration of miliary tubercles, or else what Michel Péter calls "paraphymic" congestion, or one which is vicarious, and only occurs in the somewhat remote neighborhood of the existing tubercles. Certainly there is no reason, rational or physical, to dread the existence of a lung cavity, or of one of those profuse hemorrhages which are due to the ulceration of a vessel of large calibre in hard, non-elastic cheesy tissue. Rational therapeutics has a word to say in this place. Of course I shall keep this boy on an emulsion of cod-liver oil, and I will also deem it indicated to place repeated fly-blisters under his clavicles to diminish localized congestion, due to whatever cause it may be.

But what shall I say of other indications? In the doubt where I am, for the while I shall interdict the continuance of his trade, in which so much physical exertion is required, because, while I believe it has been a sufficient cause to produce his actual cardiac hypertrophy, so I believe it will aid by stimulating the heart to increased action, the occasion of augmented vascular tension in the lungs, as elsewhere, and thus infallibly lead again to hæmoptysis of more or less quantity. I shall, after a similar indication, advise regular habits, restraint from over-muscular exercise of any and all descriptions, denial of all stimulants, such as tea, coffee, and alcohol. This boy should live a great deal in the open air, and eat abundantly of azotized food.

One word more, and I have done. He says the doctor who first saw him advised him to take ten or fifteen drops of tincture of iron in water whenever he began to spit up blood. Shall he follow out this prescription? Of course you know, gentlemen, the iron is here given for its supposed styptic properties, or power of contracting tissues or blood-vessels. But there is one objection to its use which has been urged, with how much justice I can scarcely affirm—*i. e.*, that it predisposes to renewed hemorrhage by increasing localized congestion. I believe Trousseau taught this. I may, however, be mistaken. At all events, I would say that, individually, I have had the best results in arresting hemorrhage in cases more or less similar to this one, by giving internally the fluid extract of ergot, in frequently repeated doses, anywhere from ten drops to one drachm at a time.

Original Communications.

ARTICULAR OSTEITIS OF THE KNEE IN CHILDREN.

NOTES ON ITS PATHOLOGY AND DIAGNOSIS, BASED UPON AN ANALYSIS OF THIRTY CASES.

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DISEASES involving or approximating the knee-joint, by reason of their frequent occurrence and tendency to assume a chronic form, have proven of especial interest to many whose office it is to check or mitigate their course. For this reason, we venture to offer some conclusions derived from an analysis of a considerable number of cases, of which the following are types.

To one appreciating the many conflicting theories regarding the location, character, and course of this and other similar inflammations, it is a matter of no little difficulty at times to arrive at a correct diagnosis of their nature; especially is this the case if he be without opportunities of making local explorations of the parts diseased. Thus it may be desirable to review briefly some of the phenomena manifesting themselves during the progress of the affection.

Formerly, this type of bone disease, which is known by Virchow as scrofulous osteomyelitis, and by Nélaton as tubercular osteitis, was not so fully recognized as an etiological factor in chronic articular inflammations—most authorities locating the primary changes in the synovial membrane, and denying that central disease of the bones invaded the structures of the joint itself; for, under the term "white swelling" was classed a great variety of degenerations,

such decidedly from the other as regards its pathology and results. This view as to its origin is likewise shared by some modern pathologists. Billroth, in describing the caseous synovitis, or, as he terms it, fungous disease of the joints, which he considers the most common variety of caries occurring in strumous children, describes the initial changes as taking place in the synovial membrane, and subsequently extending into the articular extremity of the bones, at the same time implying that a primary bone lesion is of rather infrequent occurrence. In opposition to this view, however, Volkmann,* Schüller,† and others, who, for a number of years, have been investigating this subject very carefully and conscientiously by the examination of many fresh specimens of excised bone, prove conclusively that not only is the tuberculous form of degeneration the most frequently met with, but that the latter is almost invariably located primarily in the epiphysis of the bone, but very subsequently, by an ulcerative process, involve the articular cartilage and capsular membrane of the joint; or, what is less frequently the case, the suppuration in the epiphysis, instead of progressing toward the articular cartilage, directs its course outward and away from the joint—and finally, creating a chronic inflammation of the overlying periosteum, originates a series of destructive processes in the tissues surrounding the femur or other bones entering into the formation of this structure. For, from the intimate relation existing between the periosteum and the epiphysis in children, as well as from the increased vascularity of the same portion of the femur, it is easy to explain the facility with which inflammatory processes external to the joint might assume a more serious aspect.

Again, cases are sometimes observed in which the inflammation has been arrested *in loco*, and the products of the same have either become encapsulated or absorbed, more healthy granulations filling up the excavation which would otherwise remain; these changes leaving at times little expansion of the bones, or serious impairment of the functions of the limb.

The experiments performed by these investigators, although confined to animals, are in other respects important and instructive contributions to the study of the disease. The results obtained have also shown that even slight injuries to the joints of animals who have previously been infected with tubercular virus, have caused the appearance of minute points of degeneration, almost invariably situated in the osseous structure, which microscopically have presented all the characteristics of miliary tubercle, and which, by their tendency to undergo caseation and subsequent softening, act as etiological factors in true joint disease. Volkmann is so impressed by the experiments made, that he is led to doubt the existence of any form of chronic articular degeneration other than the tubercular.

These destructive processes are similarly located by Le Sègue,‡ Duplay, and Macnamara,§ though they incline to the belief that the starting-point of the disease is either between or at the junction of the epiphysis and diaphysis of the bone affected, which is usually the femur, though the tibia is occasionally attacked in this manner.

In some of the cases illustrating this variety of disease, the morbid changes result in the formation of pus, which manifests itself quite late in the course of the affection, and is observed to occur external to the joint, usually just above the condyles of the femur—the tumor subsequently dissecting its course upward, between the tissues of the thigh, often as high as its upper third. As a rule, it gradually increases in size, and if not evacuated by incision, discharges its contents spontaneously, though it is not unusual for resolution and absorption to occur under the influence of firm and continuous pressure after the presence of fluctuation has proved the existence of a considerable quantity of fluid. The constitutional disturbance existing in such cases is usually insignificant, unless evacuation of the cavity of the abscess occur.

Associated with these processes in and about the extremity of the femur there is frequently a subacute inflammation, progressing within the cavity of the neighboring joint, its natural movements become more and more limited, there is pain thereabouts, and tenderness over the patella and lateral ligaments, with reflex contraction of the hamstring muscles which approximate the limb more or less completely to a right angle. In other cases, the inflammation, especially if it be the result of osteitic disease, which has made its destructive inroads into the joint and lighted up an acute degeneration there, is of a more destructive nature, and causes disintegration of the articular structures. This, however, is a process of many months' duration; for, owing to the peculiar anatomical formation of the extremity of the bones, there is a great resistance to inflammatory action progressing from the synovial membrane outward toward the osseous portion of the femur or tibia. It is, perhaps, unnecessary to state that this destruction of tissue is usually, if not invariably, secondary—it never having been observed in any case of our own, or of others with whom communication has been held. Smith,¶ of Philadelphia, who has published an instructive contribution to this subject, concludes that tubercular degeneration always originates in the bony structure. Cases are not infrequently observed in which those symptoms we have been taught to consider characteristic of chronic joint disease are almost entirely absent. There are no prodromata—no manifestation of tissue-changes—no grave constitutional results; in fact, it is at times a matter of no little difficulty to determine at exactly what period the inflammation ceases to be progressive.

The following clinical notes may serve to illustrate the several types of articular osteitis which have been observed:

Case VIII. Thomas D——, a healthy-looking and fairly nourished boy of twelve years, presented himself in November, 1879, at this hospital, for the purpose of obtaining relief from an affection of the right knee. There was no positive history of hereditary taint or predisposition to joint disease, though his father was said to have been subject to a slight idiopathic enlargement of the left knee. The initial symptoms date back about nine years, when, from no apparent cause, slight difficulty in running was experienced, though the act of walking was attended by no inconvenience. About two years subsequently there were added to this symptom those of stiffness and pain; the former slight, and observed only in the morning upon rising; the latter moderate in degree, and of no greater severity by night than by day, there being

* Sammlung klinischer Vorträge, Bd. 168, 169. 1879.
† Centralblatt für Chirurgie, Bd. 14. 1879.
‡ Archives générales de médecine, Sept. 1879.
§ On Diseases of Bone. London, 1878.
¶ On Certain Points in the Pathology of Bones, especially Tubercle. Phila., 1878.

at times complete immunity from it. These manifestations have not increased in severity or degree since this time. The patient stands with the feet squarely on the floor, the weight of the body being sustained principally by the left limb. He walks with a slight limp, but freely and with comparative ease. The muscles of the affected side are considerably wasted—measurements showing two and a half inches atrophy. The electrical examination shows that the muscles of the left side respond with fully one-third their normal intensity. The knee-joint is much increased in size, as the recorded measurements indicate. Circumference of left limb one inch above patella, 10.5 inches; over patella, 12.5 inches; below latter, 9.5 inches. Right knee at corresponding points, 10 inches, 10.5 inches, 9 inches. There is no infiltration of the soft parts, the increase in size being evidently due to expansion of the extremity of the femur, though most of the hypertrophy seems to be confined to the inner condyle, which is not only enlarged circumferentially, but is elongated one inch by careful measurement. The tibia and fibula are partially subluxated and rotated outward on their axes over an arc of about ten degrees. There is no appreciable amount of fluid within the synovial capsule. The hamstring muscles are somewhat tense, but not much shortened. The limb can be passively flexed to an angle of 100°, and extended to an angle of 175°; but beyond these points motion is attended by pain and resistance. Concussion of the joint elicits no pain; neither is there any grating appreciable on movement of the limb. Excepting a slight increase of the surface temperature, there are no signs of acute inflammation.

Case XV.—Sarah B——, æt. 3, was brought to the Out-door Department Nov. 28, 1879, suffering from a chronic disease of the left knee-joint. No positive history of hereditary disease could be elicited. The mother of the child stated that the latter was perfectly well during early infancy, and remained thus up to the age of sixteen months, when she fell upon the floor, at which time she was supposed to have injured the knee, though no symptoms supervened to confirm this suspicion.

A few weeks subsequently, a small, circumscribed tumor appeared over the head of the tibia, which increased in size very gradually and without any marked symptoms, save some stiffness of the limb and enlargement of the joint. One year ago this swelling, which proved to be an abscess, opened spontaneously, discharging a considerable quantity of pus and leaving a sinus which has ever since remained open. Since rupture of the abscess walls took place, the general health of the child has become considerably impaired—she having experienced more or less elevation of temperature evenings, associated with extreme restlessness and insomnia. During the past year there have been frequent exacerbations in the disease, which were commonly quite marked in their character; for whenever the discharge from the sinus has become impeded, or arrested from any cause, the joint has become invariably tense, painful, and much enlarged, rendering movement almost impossible at times.

An examination, made at the present date, shows the patient to be fairly nourished and quite healthy in appearance. She stands squarely on the floor, resting the weight of the body equally on both limbs; she walks with a limp, but quite freely. There is a very appreciable amount of infiltration about the knee, as well as tenderness on pressure over its entire surface. The head of the tibia is somewhat enlarged, and there is situated over it a large cicatrix, adherent to the tissues beneath, and the site of a discharging sinus which leads down to carious bone. Both condyles are enlarged, the inner being three-eighths of an inch the longer. The joint appears tense and fluctuating, and the overlying integument is hot and reddened. Firm and continued pressure over the joint causes an exudation of pus from the sinus above-mentioned. The patella is in its normal position, is freely movable, and seems to float upon fluid of some kind. Extension of the limb can be passively made to the extreme normal limit, and flexion to a right angle without pain; motion at the joint is free and smooth to these limits—no grating or other abnormal sensation being experienced. The responses to the faradic current are diminished about one-fourth in the affected limb. There is no contraction of the hamstring muscles, and no atrophy of the thigh or calf. Circumference of limb above patella of left side, 8.8 inches; over patella and around condyles, 8.8 inches; below patella, 7.8 inches. Corresponding points on right limb, 9.5 in., 10 in., 8.5 in. During the last few weeks the health of the child has become somewhat impaired.

Case XXI.—Frank R——, æt. 4 years, was admitted to this hospital December 19, 1878. He was said to have been perfectly healthy previous to the inception of the present disease, which was first noticed in the preceding July. No hereditary taint discoverable, neither was there present any chronic disease in his family. At this date, the mother of the child noticed that he walked with a slight limp, which was associated with some pain and swelling of the knee. After a period of two weeks, however, these symptoms almost entirely disappeared, and the child again ran about with perfect ease. About one month later the joint began to be slightly stiff mornings, and to be the seat of considerable pain, which interfered somewhat with locomotion; these symptoms, however, would pass away in a few hours, and he would appear as well as ever. He was soon after taken to a dispensary, where a straight posterior splint was applied to the limb, which afforded him considerable relief—there being no distinct or positive symptoms complained of for some time afterward.

Two months previous to his admission, the apparatus was removed for the relief of the excoriations which it had produced; subsequent to this time, he has been totally unable to walk, and has suffered from continuous pain and extreme restlessness at night.

On examination, the boy is found to be fairly nourished, though rather strumous in appearance. He stands with the left lower extremity semiflexed at the hip and knee, the foot being thereby elevated a little from the floor. He refuses to walk, seemingly on account of pain about the joint; the latter is considerably enlarged around and above the condyles, due in part to infiltration, but presents no signs of acute inflammation, though the surface temperature is a little elevated. The patella is non-adherent, and movable over a small area. There is apparently little fluid within the joint. The condyles and overlying tissues are increased in size, as shown by the following measurements: Circumference of right limb an inch above patella, 8.3 in.; over patella, and around condyles, 9 in.; below patella, 7.5 in.; corresponding points on left limb, 9.3 in., 10 in., 7.6 in. The left thigh is an inch smaller than its fellow. The internal condyle shows the greater degree of enlargement, as herewith indicated. Outer lateral

sent circumference, 4.4 in.; inner side, 4.6 in. The length of the left femur exceeds that of the right by half an inch. The limb can be extended to an angle of 160 deg., and flexed over an arc of 30 deg. with ease; these movements are quite free, and associated with no pain, grating, or other signs of synovial degeneration. Consumption of the joint elicits no marked pain. No signs of former or present abscess apparent.

In addition to appropriate constitutional treatment, the knee is firmly compressed by a laced bandage, and extension and fixation of the limb favored by the apparatus employed by Dr. Knight for this purpose.

Oct. 22, 1879.—For the past few weeks he has become quite restless at night, and he has been noticed to cry out in his sleep. The joint is a little more tender and swollen than before. This morning the knee is found to be rigidly flexed at an angle of 135 degrees; the slightest motion, whether voluntary or passive, causes severe pain. The parts are very tender, and present a considerable elevation of temperature.

The capsule of the joint is much distended, as the following figures indicate: Circumference of limb above patella, 10.3 in.; over condyles, 11.3 in.; below patella, 8.8 inches. Constitutional disturbance not marked in character.

Nov. 10, 1879.—There has been much improvement in the boy's general health since the date of the last note, as well as in the condition of his knee, which appears also very much better in every respect. The arc of motion is now about the same as it was on his admission.

The following history illustrates the chronicity and slow progression so often exhibited by the affection, as well as the ultimate result obtained:

Case XXX.—T. M——, aged 7 years, was admitted to the Out-door Department of the hospital, August, 1876. Although he and his parents have always lived under bad hygienic influences, the histories of both, so far as could be ascertained, showed no hereditary predisposition to disease. His sickness manifested itself two years ago, from no apparent cause, by some trouble at the knee-joint, which began very insidiously and gave him little inconvenience; he walked with a slight limp, but complained of no pain or tenderness anywhere. Subsequently, however, they were present in a marked degree, and were associated with swelling and infiltration of the parts. Suppuration finally ensued, and a spontaneous evacuation took place. Since that time his health has been somewhat impaired, and for some weeks locomotion without assistance has been impossible. An examination made at this time shows that the boy is quite well nourished, though somewhat anæmic. He stands with the right limb semiflexed and advanced—the toes being elevated some inches from the floor. He is totally unable to walk without support—any use of the joint being accompanied by excruciating pain. The right thigh and leg are found, on measurement, to be a little atrophied. The normal contour of the knee is effaced by infiltration and enlargement. The patella is in its proper position, but immovable. The inner condyle is enlarged, but the heads of the tibia and fibula are about normal in size, though subluxated backward a little. There is some tenderness over the internal lateral ligament, but none elsewhere; surface temperature a little elevated. Extension of the limb can be passively made to an angle of 155 deg. and flexion to an angle of 90 deg. without the slightest pain. No grating or laxity of the ligaments appreciable. Concussion of the joint elicits some pain, which is not marked, however.

July, 1879.—Discharged this date very much relieved, though the maximum amount of improvement seemed to have been afforded some months previously. His general health is excellent. He stands squarely on both feet, and favoring neither side. He walks freely, but with a considerable limp, due to the flexed position of the leg. There is still a little displacement of the tibia and fibula. No pain or tenderness about the joint. Angle of greatest extension, 165 degs. Still wears apparatus.

October, 1879.—Returns to report his condition. There has been no relapse since his discharge. Angle of extension 170 deg. On careful measurement of the femora, the right is found to be three-fourths of an inch the longer. Electrical reaction good in proportion to the size of the muscles. Can walk long distances with ease. Apparatus removed. It may not be devoid of interest to notice briefly some of the prominent points relating to this variety of bone disease. The location of the pain and swelling is of some importance in this point of view; in most cases it is first found to be, not in the synovial membrane or in intimate relation with the joint cavity, but above and around the condyles, or over the head of the tibia, at which points the other signs of inflammation are also present. With a very few exceptions, the character of the pain differs in no particular from that attending other forms of bone degeneration—the sharp and sudden nocturnal cry being commonly absent, although the assertions of some observers as to its almost invariable existence, have led to its acceptance as a diagnostic sign by many surgeons.

From the location of the initial symptoms, therefore, it is improbable that the disease occurred primarily in the synovial membrane. The progress of the affection as well is no less characterized by symptoms of osteitic disease—the parents of the child commonly stating that while in good health, and under provocation apparently too insignificant to produce other than superficial injury to the parts, the child began to walk with a slight limp; to complain mornings of pain and stiffness at the knee; to resist passive motion of the joint, and to experience spasmodic contraction of the hamstring muscles; for, as we reflect upon the intimate relation existing between the nerves of the joint and the muscles associated therewith, we can scarcely expect other than reflex phenomena of an exaggerated form. That symptoms of synovial disease usually show themselves at some period during the course of the inflammation, is not denied; for it must happen at some time in its progress, provided its normal course and character be not otherwise affected, that those structures intimately connected with the articulation will have become involved. Neither is it questioned that the initial joint lesion is sometimes found to be situated in the synovial membrane.

In adults, destructive changes in this locality are said to be marked by much less rapidity and virulence than are characteristic of other forms, and with such harmlessness to the deeper articular structures, that rupture of the distended synovial sac, and infiltration of the soft parts of the thigh, may take place even before the subjacent bony structure has become impaired.

So far as our experience goes, a primary inflammation of the synovia is almost invariably of an acute nature in children, and is thus of much importance

as a diagnostic sign, while true articular osteitis is *always* chronic, both in its character and manifestations.

The existence of subluxation, considered apart from the other conditions associated with it, is not a characteristic sign of the disease; for any degenerative process about the joint which involves its ligaments and cartilages would tend to produce the same result; but, when considered with the other diagnostic signs of osteitis, it assumes a greater importance.

It is not uncommon for malposition of the articular surfaces of the tibia and fibula, with rotation on their axes, to occur as a sequel of acute or chronic inflammation of the joint. When, however, the cause has manifested itself as a degeneration which for many months previously has had its seat apparently at or above the condyles of the femur, but which subsequently has involved the joint, we must usually attribute the displacement to the results of a disease external to the synovial membrane, which has extended thither by contiguity of structure, and overcome the resistance offered chiefly by the anterior crucial ligament. Rarely is it attributable to a cause differing somewhat from the latter—namely, the extension of a chronic inflammatory process located in the periosteum about the condyles, which, judging from the early enlargement of the latter existing in osteitis, must have been associated with proliferation of bone-cells. It is said, however, that a true periostitis is not generally characterized by an exaggerated tendency to new osseous formation, which is one of the characteristics of the form under consideration, but rather to disintegration of the affected tissues; or, by cutting off the nutritive supply to the subjacent bone, to caries or its allied degenerations, to which, with more reason, might be attributed the hypertrophy which so often exists. In cases where the inflammatory process confines itself to the articular extremity of the femur, the latter is much increased in size, while the only evidence of synovial inflammation which commonly exists, is pain and stiffness about the joint, which might, with equal probability, be due to inflammatory thickening, shortening, and infiltration of the periarticular tissues; occasionally, the presence of fluid within the capsule is apparent as a secondary symptom, though little inconvenience arises from it—in fact, the functions of the limb seem often less impaired than when none exists.

In very many cases, if not all in which the existence of osteitis was evident, there was enlargement of the internal condyle, for this one is more generally affected than its fellow, as shown by recorded measurements.

It has been denied by some authorities that true intrinsic enlargement of these occurs, but that the apparent increase in bone substance is caused by the deposition of osseous material upon the surfaces of the condyles. Paget states that by far the most common seat of the new formation is either in the periosteum, or between it and the bone, which view is shared by Billroth as well. One of the first to attach to this a different meaning was Roser,* who considered cell-proliferation in the epiphyseal cartilage a frequent cause of the elongation. The existence, however, of pathological specimens showing undoubted intrinsic enlargement of these parts, together with clinical experience afforded by measurements of joints not infiltrated, tend to render this rule not only fallible, but attended with many exceptions. For, numerous post-mortem examinations of the knee-joint, with a view of ascertaining the normal size of the condyles, as well as of the parts overlying, have enabled those who will, to estimate with some degree of accuracy the amount of enlargement which exists.

Although those cases of condylar enlargement, accompanied by bone-proliferation, exceed by far those in which suppuration predominates, it is not rare to find, on sawing the outer layers of the epiphysis of bones thus enlarged, a central degeneration, which is shown either by the existence of cheesy material, which has become more or less completely encapsulated, or pus, the final manifestation of a long series of degenerative processes. In cases of this nature, however, the previous history of the patient will usually be found to exhibit some of the more positive signs of osteitis. We have in our possession notes of cases in which infiltration in the vicinity of the joint had existed for many months, sometimes improving, but as often relapsing to its former condition; the other signs of osteitis being likewise present. Examination of the parts after death, however, showed that although the bony structures of the joint were markedly increased in size, there was no evidence of caries on their surfaces; but upon dividing the condyles into lateral halves, a considerable quantity of thick pus flowed from their centres, disclosing large cavities there, which sometimes occupied fully two-thirds of their substance.

The importance of the faradic current as a diagnostic measure has been highly estimated by some who have had much experience in this department of surgery. It is claimed by them that the muscular tissues about an osteitic joint are markedly less sensitive to this current, even in the earlier stages of the affection, and that the phenomenon is usually not present to any extent in synovitis, rendering this, therefore, an important subject of consideration in the differential diagnosis. For some time we have improved the opportunity to examine electrically many cases coming under our observation, using both the primary and secondary currents with slow and rapid interruptions, and testing cases illustrating various forms of knee-joint disease. The result of these examinations has been to impair our confidence in its claims; for in those presenting all the other signs of osteitic disease, which was often far advanced, the contractility was diminished about in proportion to the muscular atrophy, the responses being equally good in those cases presenting the same condition of the muscles from other causes.

During the first stage of the affection it was diminished, on an average, about one-third, though sometimes much more; for it is quite natural that diminution of electric contractility should exist in all cases where any infiltration is present—the fact that this condition interferes with the free transmission of the current being unquestionable. In cases of synovitis, arthritis, and periarthritis, this symptom existed in about the same degree.

Verneuil has lately stated that true anchylosis from arthritis of a joint is of very rare occurrence, but that it is simulated by the contraction of the muscles and periarthritic tissues in their attempt to immobilize the joint for the relief of pain. While considering this view, none too radical as regards the disease spoken of, we imagine even less few exceptions to this rule occur as the result of true osteitis; for, so far as observation of a considerable number of such affections will enable one to judge, fixation of the limb by fibrous adhesions, muscular con-

* Handbuch der anatomischen Chirurgie, 1875.

tracture, and changes in the tissues overlying the joint, is a most common sequel of the disease, while fusion of the articular surfaces of the bones is of quite rare occurrence. In the cases just referred to, an articular disease, either far advanced toward recovery, or presenting all the signs of a progressing inflammation, was too apparent by its attendant symptoms to admit of doubt. The joints were firmly and almost immovably fixed at a more or less obtuse angle, and in some instances not the slightest motion between the articular surface could be elicited. But these cases, apparently hopeless so far as the obtainment of a useful limb was concerned, have, with a few exceptions, become gradually so much more extended under the influence of continuous extension by a brace used for the purpose, that the act of locomotion was performed with comparative ease.

A PRELIMINARY REPORT UPON THE USE OF DILUTE NITROUS OXIDE GAS IN THE TREATMENT OF MELANCHOLIA AND NERVOUS EXHAUSTION.

By JOHN ELLIS BLAKE, M.D.,
AND
ALLAN McLANE HAMILTON, M.D.

Several years ago the attention of one of us (Dr. Blake) was called to the use of nitrous oxide, or laughing gas, as a remedy in certain asthenic nervous disorders by Mr. Johnston, the manufacturer of dental instruments in this city, who had been informed by one of his correspondents in regard to the wonderful efficacy of an admixture of nitrous oxide gas and air in insomnia, "nervous debility," and headache. Dr. Blake immediately began a series of experiments, which we have jointly continued, and we understand that Dr. Alexander Skene, of Brooklyn, to whom Dr. Blake some time ago communicated his investigation, has had results scarcely less favorable than our own.

The administration of the gas is for its stimulating effects, and taken with a greater or less proportion of air, it produces a species of exhilaration with very little subsequent reaction, the primary excitement being akin to that which commonly follows the use of champagne or any sparkling dry wine. There is a feeling of lightness and buoyancy, the individual becomes loquacious, while the heart's action is increased, and there is a momentary dizziness. The administration of the gas should not produce other effects, for intoxication and anæsthesia imply a step beyond stimulation, and therefore should be avoided. If the fingers grow numb, or if any object upon which the patient fixes his gaze becomes blurred, then should the use of the gas be discontinued.

From the condition of exhilaration described the patient recovers, and for the rest of the day feels decidedly brighter and more active. If he be depressed before the gas is given, or suffers from an attack of "the blues," the effect is much more marked. Patients who have placed themselves under our care, who have at first been dejected, who have worried about their absence from home, or about their children, or business, have in a few days become entirely accustomed to their new surroundings, and have indulged in amusements and pursuits they never were able to enjoy. It virtually takes the place of alcoholic stimulation, without depression, and for this reason we suggest its use in the treatment of alcoholism, especially in the early stages of delirium tremens. As a remedy in insomnia it has no equal, and when *not* given just before bedtime, but in the morning or middle of the day, it, as a rule, procures refreshing sleep, even for those who have relied entirely upon anodynes.

In cases of so-called "spinal irritation," or in cases of "nervous prostration," in women who have no discoverable uterine disease, we have good reason to think it acts admirably, as it also does in hysteria, or the form of nervous derangement bordering on melancholia. When the circulation is defective, and when there is lividity of the hands, constipation, slow pulse, and rough, scurvy, mud-colored skin, it in a short time greatly betters the condition of the patient. It, so far as we have seen, favors the assimilation of food, hastens the action of iron, and increases functional activity. Appetite and sleep, and disposition to take exercise, are all improved.

The remedy has been used much in its compressed or liquid form by quacks, under the names "compound oxygen" or "liquid oxygen," and even in such hands has cured many persons who have gone the rounds of the legitimate profession.

It is not indicated in sthenic affections, or when there is a tendency to cerebral congestion or excitement, but rather for the irritability of exhaustion. It therefore, we have found, increases the trouble in vigorous, full-blooded subjects. The gas should be used well diluted with air, which may be accomplished by opening the valve near the mouth in the instrument provided for the purpose. Daily inhalations of not less than twenty gallons of gas should be used, the amount of air taken as well into the lungs being sufficient to prevent intoxication.

We are now engaged in experiments with nitrous oxide in the treatment of the chronic insane, and will publish our observations at another time. At present we deem it our duty to suggest to the profession the employment of a remedy heretofore used only for surgical purposes, which, in its new method of employment, promises a great deal.

Reports of Hospitals.

BELLEVUE HOSPITAL.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

DOUBLE AORTIC MURMUR—DILATATION EXCEEDING HYPERTROPHY—OBSTRUCTION TO RETURN CIRCULATION—IMPORTANCE OF RECOGNIZING DILATATION OF THE RIGHT AURICLE.

The following case was interesting on account of symptoms referable to the heart. A male patient, æt. 50 years, a plasterer by occupation, had been sick thirteen months with what he called rheumatism in the shoulders, in the muscles, and backache, but had not at any time had swelling of any of the joints. He was first attacked with swelling in the neck, which lasted about six weeks, and since that time had not been able to work. The swelling would come and go, and was not accompanied by any difficulty of swallowing. During the six weeks, at times when the swelling of the neck occurred, he noticed that his face was red and somewhat purple, and since that time he had not been able to work on account

of what to him seemed to be a "rush of blood to the head." He was not able to lie upon the left side, felt weak, and suffered from shortness of breath on going upstairs, and when he bent forward he was "kind o' dizzy." He had had a cough without expectoration other than mucus, ever since he had been sick. Twenty-five years ago he had a small single sore upon his penis, but had never had sore-throat, eruption, or falling of the hair. He had slight lumps in the groin soon after the development of the sore on the penis, but, together with the sore, they disappeared without special treatment.

Physical examination.—On inspecting the surface of the trunk, an enlarged vein was noticed in the central portion of the upper part of the abdomen, and a visible movement over the epigastrium, and extending to the left of the nipple considerably. The maximum point of heart-beat was to the left of the nipple and downward; it was more forcible, and was felt over a larger area than normal, and its rhythm was lost. The scapulæ moved freely on full inspiration. Vocal fremitus was increased on the left side as compared with the right. On *percussion*, dulness, not flatness, was found upon the left side. The questions to be answered were these: Was the swelling and blueness of the face upon exercise, or when he held his head forward, or when he was in the horizontal position, due to some obstruction to the return circulation existing outside of the heart, or was the cause within the heart?

Was the displacement of the apex of the heart to the left the result of hypertrophy, with or without dilatation?

What gave rise to the increased vocal fremitus with dulness over the right chest posteriorly?

There was a pleuritic friction-sound over the left chest. There was no evidence of pulmonary consolidation. There was no increased area of dulness on a level with the third rib toward the left; but the area of dulness extended to the right beyond the normal limits to a small extent. There was no impulse over this region. There was an aortic regurgitant and aortic obstructive murmur, mediastinal tumor was excluded, aneurismal or otherwise.

External obstructions to the return circulation were excluded. There must be some obstruction to the return circulation in the right auricle, such as comes from insufficiency of tricuspid orifice, or in connection with disease affecting the left side of the heart, in order to develop blueness of the face when the patient lies down. In this case, that condition was believed to be due to the fact that the eccentric hypertrophy was not sufficient to overcome the dilatation. It was not simply a case of aortic regurgitation and obstruction, with hypertrophy, but it was regarded as a case of aortic valvular lesion, with hypertrophy insufficient to compensate for the dilatation, and therefore it was impossible for the heart to empty itself completely at any time. As a result of that, failure in the right heart follows, and there is disturbance of the return circulation. That was the reason given why one man with double aortic murmur gets along very well—namely, the hypertrophy compensated for the dilatation—while another patient gets along badly because the hypertrophy is not sufficient to overcome the dilatation.

The patient did not suffer from vertigo when walking or sitting. He had had pleurisy at some time upon the left side posteriorly. It was remarked that dilatation of the right auricle, so that it does not have its normal power to empty itself, is a very common cause of the turgid condition of the vessels of the head and upper extremities, and one not sufficiently appreciated in physical diagnosis relating to diseases of the heart and the aorta. What can be accomplished by treatment? was the next question. Rest was set down as all-important. We should never exercise sufficient to tax the heart in the least. At the same time, the nutrition of the cardiac muscle should be increased, if possible, and that can be best done by taking a concentrated nitrogenous diet, small doses of iron, and with those measures $\frac{1}{100}$ of a grain of digitaline t. i. d., simply to stimulate the muscle of the heart sufficient to increase its nutrition. With proper management, it was thought that life might be prolonged from four to six years.

VARICOSE ULCERS—RUBBER BANDAGE.

Some cases of varicose ulcers on the lower extremities were seen, which were being treated by the application of the rubber bandage. A general experience is that as soon as the bandage is applied the pain is very much modified, or entirely subsides, and improvement is marked and rapid. The ulcers commonly heal within ten or twelve days. In one case the rubber bandage was used upon the right leg, and an ordinary rubber-bandage was used upon the left leg, and the progress had been nearly equal.

SUBACUTE SYNOVITIS OF THE KNEE-JOINT.

A patient afflicted with the disease had worn the rubber bandage with marked benefit. The pain was relieved promptly, and the swelling diminished rapidly. It is regarded as better than pressure obtained by the use of compressed sponge. The bandage should be removed as often as it becomes loose, and then reapplied. In the case before us the swelling had almost entirely subsided, there being little more then that slight thickening of the tissues which almost invariably remains.

FRACTURE OF THE LOWER JAW WITHOUT DISPLACEMENT.

A male patient was admitted to the hospital, suffering from an abscess of the left side of the face. A few days before admission he fell and struck upon the side of his face, which afterward began to swell and pain him severely, and it was only with great difficulty that he could open his mouth at all. There was one feature of the case which gave rise to the suspicion that he was suffering from something besides abscess of the face, and that was a peculiar fetor of the breath—always present with fracture of the jaw. On account of the great swelling, the surgeon was not able to examine the jaw sufficient to enable him to make a positive diagnosis. An opening in the side of the face was subsequently made and a large quantity of pus was evacuated, and then, the tumefaction was so reduced that examination was possible, and distinct crepitus was obtained. The fracture was near the angle, and the peculiar feature of it was that there was no displacement. The swelling about the seat of the fracture tended to keep the bones in position. It had had no dressing except a roller-bandage.

COMPOUND FRACTURE OF THE LEG—DIFFICULTIES OF REDUCTION.

The fracture was caused by a bar of iron falling upon the middle part of the left leg of a man in good health and of middle age. The lower end of the upper fragment of the tibia projected through the integument. To reduce the fracture, so that the end

of the bone would be entirely within, extension and counter-extension were employed, but all efforts in that direction failed. Extension and counter extension, accompanied by an incision in the soft parts, and pressure upon the projecting fragment so as to depress it and bring the bone into proper position, were then resorted to, and failed. Excision of portion of the projecting fragment was then resorted to, and complete reduction accomplished. The clotted blood was carefully wiped away, and the limb was dressed in a fracture box. The surgeon remarked that there is an objection to removing a large fragment of bone, for the reason that it might delay union or be the cause of non-union. [Gangrene appeared, and the limb was subsequently amputated.]

Progress of Medical Science.

On the Use of Carlsbad Water in Diabetes Mellitus. Dr. Mayer, of Carlsbad, concludes a paper on this subject with the following résumé:

I. Diabetes mellitus is an incurable disease.

II. The Carlsbad cure, in a large number of the cases, relieves the most troublesome symptoms, improves the general condition of the patients, and prolongs life.

III. In cases which have reached a certain advanced stage, or which are complicated with other severe diseases, Carlsbad water proves useless.

The use of Carlsbad water is indicated: 1. In all cases of diabetes mellitus of the first degree, whether of the gastro-enterogenic (chylogenic), hepatogenic, or neurogenic variety. The tolerance for the hydro-carbons will increase in proportion to the fidelity with which the patient adheres to a strict nitrogenized diet, not only while under treatment, but at all other times. 2. In those cases of the second degree (severe form), in which the greater part of the albuminates ingested are utilized in the body, and in which the organism does not have to make good from its own organic constituents any deficiency in the supply of nourishment, or at least when the deficiency to be supplied is only very inconsiderable; in other words, whenever under an exclusively meat diet the weight of the body diminishes only very little or not at all. 3. In cases falling under 1 and 2, but complicated with furunculosis or carbuncles. 4. In cases falling under 1 and 2, complicated with nervous amblyopia or cataract, provided the general condition is free from manifestations of marasmus. 5. In cases falling under 1 and 2, complicated with slight pulmonary affections, such as catarrh or circumscribed chronic pneumonia. 6. In obese patients subject to more or less frequent attacks of angina pectoris, that can be ascribed to the cardiac weakness consequent on fatty heart. 7. In cases falling under 1 and 2, complicated with albuminuria, whether the latter appeared at the outset of the diabetes, or only after the disease had already existed for years.

The Carlsbad water is counterindicated: 1. In those cases of the second degree (severe form) in which only a small part of the albuminates ingested are utilized, and the organism must make good from its own organic constituents this great deficiency, in which, in spite of a large excretion of sugar (100 to 200 grms. pro die), enormous quantities of urea are discharged with the urine. Fürbringer briefly characterized this condition of affairs as one "in which the relative percentage of sugar is very small." Cases of this sort must progressively emaciate and proceed rapidly and without intermission toward a lethal termination. 2. In cases of diabetes mellitus in which cardiac weakness leads to gangrene of the skin. 3. In cases complicated by affections of the eyes that are directly dependent on severe cerebral disease—*e. g.*, atrophy of the optic nerves, hemiopia due to cerebral tumors, etc. 4. In cases complicated with phthisis, tuberculosis, or gangrene of the lungs. 5. In cases in which asthmatic difficulties persist, or the attacks of angina pectoris remain frequent, although the formerly obese patients have emaciated considerably. 6. In cases in which the albuminuria is accompanied by marked anæmia or hydræmia, or where it is symptomatic of nephritis or of amyloid degeneration of the kidneys. 7. In cases of the second degree (severe form) complicated with constitutional syphilis. *Memorabilien*, Nov., 1878.

Physiological Effects of the Formiate of Soda.—Mr. Arloing reports the results of a series of experiments with this drug. When successive doses of a 20 per cent. solution are injected slowly into the veins of a dog or horse, the following phenomena on the part of the circulatory system are observed: after the first injections the heart beats more slowly, the capillaries of both the general and the pulmonary systems dilate, the arterial tension diminishes, and the diastolic or constant rapidity of the blood-current increases in the centrifugal vessels; when the quantity introduced into the blood has become large, the heart's action becomes more rapid and the systole weaker. If a very large dose of the formiate be injected directly into the right ventricle, it causes retardation or even arrest of the heart's action. This arrest may be permanent; if not, the heart begins to beat again after a longer or shorter interval, according to the quantity of the formiate injected. After the action of the heart has been re-established, the symptoms are the same as after the injection of large doses.

Small doses increase the number and depth of the respiratory movements. Moderate doses prolong expiration, and are sometimes followed by a series of short, rapid respiratory movements, separated from one another by a deep inspiration and a prolonged expiration. Large doses accelerate the respiratory movements and diminish their depth. A very large dose causes, immediately after the injection, a short arrest in expiration; the respiration is soon re-established, and is for a time exceedingly rapid, gradually increasing in depth. After twenty or thirty seconds these phenomena are replaced by a diminution in the rapidity and depth of the movements of the thorax, and by a tendency to a pause during expiration.

The formiate of soda is toxic when the dose exceeds 1 grm. for each kilogramme (15 grs. to 2¼ lbs.) of its live weight of the animal. Death is ushered in by short inspirations separated by expiratory pauses, which rapidly grow shorter and shorter. The movements of the chest are arrested in expiration. The heart continues to beat for about fifty seconds after respiration has ceased, its pulsations gradually becoming slower and weaker.

The formiate of soda lowers the animal temperature. In gradual poisoning, the temperature may fall 4.5° F. in an hour. This fall of temperature is due partly to the marked dilatation of the superficial capillaries, partly to the diminution in the depth of the respirations, and more especially to the modifica-

tion of the pulmonary exchanges and the retardation of the organic combustion. When the expired air was analyzed during the action of the drug, it was found to contain less carbonic acid and more oxygen than under normal conditions, showing that the diminished elimination of carbonic acid by the lungs was accompanied by a diminished absorption of oxygen. When the gases of the arterial blood were analyzed, both the carbonic acid and the oxygen were found to be diminished; hence, the diminished absorption of oxygen by the lungs was accompanied by a diminished production of carbonic acid in the tissues. The effects of the drug on the elimination of urea were not studied.

It follows from the above that the formiate of soda must be classed among the defervescent remedies. It may, perhaps, prove useful in cases where the action of the salicylate of soda is distrusted, as it does not cause congestion of the kidneys, and does not affect the heart as violently as the salicylate.—*Arch. gén. de méd.*, November, 1879.

Fatal Hemorrhage after Vaccination.—Heyfelder and Kersten have each reported a case of profuse, but not fatal hemorrhage after vaccination, and Henschel and Stromeyer have reported cases of fatal hemorrhage after the same operation. In all these cases the patients belonged to families that were known to suffer from hæmophilia. To these cases—which are all of which he could find records in German medical literature—Dr. Pott, of Halle, adds another, which is peculiar from the fact that the hemorrhage probably depended on leukæmia. The patient, a well-nourished girl, aged seventeen weeks, was vaccinated by four shallow incisions on each arm. The incisions bled very freely at first, and the bleeding is said to have continued for two days. The pock did not take regularly, but on the third day vesicles containing a bloody serum formed over the incisions. On the fifth day some of these vesicles burst, and for two days a large quantity of a lymph-like fluid exuded from them. The hemorrhage then returned, and on the ninth day, when Dr. Pott saw the child, a thin, bloody, serous fluid, which had but slight tendency to coagulate, was oozing from the incisions. The child was well nourished, but was very anæmic, and its skin had a wax-like color. The extremities and face were cool, and the child shivered as if with cold. The respiratory and circulatory organs presented nothing abnormal, but the liver was greatly enlarged; it was firm and smooth, and easily mapped out by palpation. The spleen was also greatly enlarged and firm. The inguinal, cervical, and axillary glands were enlarged. The examination of the blood revealed marked increase of the white corpuscles, the proportion being estimated at one to thirty. The father of the child had frequently suffered from epistaxis, but otherwise there was no discoverable hereditary tendency to hemorrhage. In spite of all efforts to stop it, the hemorrhage from the incisions persisted, and cutaneous extravasations formed on different parts of the body. The child grew rapidly weaker and paler, and died in convulsions on the fifteenth day after vaccination. An autopsy was refused, but the diagnosis of leukæmia was undoubtedly justified by the symptoms. The pock used had been taken directly from a cow, and had been used at the same time on thirteen other children with perfect success. Within the last few years it has been discovered that leukæmia is a relatively frequent disease of childhood, and the connection between that disease and the hemorrhages of very anæmic children has also been pointed out.—*Berl. klinische Wochenschrift*, Nov. 3, 1879.

Case of Ileus treated successfully with Mercurius Vivus.—Dr. Rintelen, of Hagen, Westphalia, reports this case: The patient, a woman, forty-five years of age, had suffered for ten days from obstruction of the bowels, with intense pain and feculent vomiting, and had fallen into a state of marked collapse. During the first few days of her sickness large injections of water into the colon had several times produced free evacuations, followed by temporary relief, but during the last five days no fæces had been passed at all, and her condition had rapidly grown worse. Injections of air and all other methods of treatment had proved futile. As the case was desperate, the diagnosis of ileus could be made almost with positiveness; and as the operation of laparotomy would not be permitted, Dr. Rintelen decided, as a last resource, to try the effects of metallic quicksilver. The condition of the patient, in spite of the collapse, was favorable for a trial of this remedy, as the peristaltic movements were still very strong, and there had been no general peritonitis to glue together or soften the intestines. Accordingly, 300 grms. (nearly ten ounces) of quicksilver were administered in three doses, at intervals of an hour. The vomiting ceased after the first dose, but the nausea persisted, and the condition remained otherwise unchanged until the following morning, when the first evacuation from the bowels took place, fifteen hours after the first dose of mercury had been taken. During that day the patient had nine thin passages, and at the same time the peristaltic movements became less violent, the pain diminished greatly, and her general condition improved. From that time on she steadily improved, but the bowels were loose for several weeks, and she suffered considerably from pain for a few days. No traces of the mercury were found in the stools until the third day, seventy-two hours after its administration. On that and the three following days a few globules were found in most of the stools, but on the seventh day she passed at one time over five ounces of mercury, on the eighth day about an ounce and a half, and on the ninth day nearly two ounces, and for some days longer the stools sometimes contained small quantities of it. On the twenty-third day the patient was discharged cured. No symptoms of mercurial poisoning were observed in this case.—*Berl. klin. Wochen.*, Nov. 3, 1879.

Gastrotomy in a Case of Œsophageal Stricture.—Dr. S. Herff, of San Antonio, Texas, reports to the *St. Louis Courier of Medicine* a case in which the above operation was performed. The patient, a child of seven, had swallowed caustic lye a year before. Since then she had not been able to swallow solids, nor even liquids, all of the time. As the child was failing steadily, and bougies did no good, an operation was determined on. Dr. Howse's plan was followed: an adhesion was first excited between the stomach and abdominal wall by a double row of sutures. Then an opening was made into the stomach. The operation was performed successfully, without fever, peritonitis, or any bad symptom. The child is now fed entirely through the fistula: finely chopped beef, or other meat, generally raw, is pushed through the opening. Liquids are poured in through a funnel. Saliva enters the stomach somewhat by the act of swallowing; she spits on some of the food. Since the operation she has continued well and increased in weight.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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CONCERNING ETHERIZATION.

PATIENTS are so frequently brought under the influence of an anæsthetic, and so many internes of hospitals claim to be adepts in the administration of the drug, that it may appear almost like presumption on our part to claim that there is anything yet to be learned on the subject. It is true that we now and then hear of a death from chloroform, but this circumstance is generally explained by the fact that chloroform is dangerous. The usual verdict of the coroner's jury, that no one is to blame for the result, helps the professional man to the conclusion that the prevention of sudden death is impossible, and that sulphuric ether should always be used when an anæsthetic is required. Chloroform has such a reputation for treacherous behavior, that those who dispense its vapor are generally very cautious how they proceed, and narrowly watch the pulse and the respiration during the whole time the patient is insensible. It is fair to assume that by this care many fatal results are prevented. What, however, induces caution in the administration of chloroform has usually the contrary effect when ether is used. In other words, because ether is known to be an eminently safe anæsthetic, the method of its administration and the degree of insensibility produced appear to be matters of purely secondary consideration. That hundreds of deaths have not been due directly to the clumsy—nay, ignorant administration of ether, is a wonder to any one who has witnessed many surgical operations, especially in our large hospitals.

Having assumed thus much, we come to the point of our remarks by insisting that greater care should be exercised even in the administration of sulphuric ether. Aside from the fact that death may occur from etherization, patients are very apt to suffer, if not bodily, at least mentally, from the oftentimes rough, if not positively cruel handling, which by many is thought to be necessary to overcome resistance.

By many patients the horror of being held down and almost choked with ether is greater than that of the operation itself. This process of overwhelming with the anæsthetic may not be considered dangerous by the giver, but it is dreadful to the subject. A very common practice is to crowd the sponge over the nose and mouth of the patient, and give him as little air as possible. Anæsthesia is then induced with great rapidity. Time is not only saved, but considerably less ether is used. These circumstances hardly weigh against the suffering of the patient, who is held down by main force—straddled and sat upon, if necessary—to control what is with a grim humor called his period of excitement. In one of the hospitals of this city there is a very suggestive caricature of a patient being anæsthetized in accordance with the generally accepted method. The gentleman giving the ether is at the head of the operating-table, holding the sponge tightly over the patient's face, and steadying the head by grasping it between his arms. The patient is represented in the act of struggling; the chest is arched upward, the head is thrown backward, the extremities are distorted, and no less than six assistants are exerting their utmost strength to compress the patient within proper limits. There is such a mixture of limbs, so much confusion of angular articulations, of hands, of heads, and of feet, that it is at first somewhat difficult to make out where the patient begins and where the assistants leave off. To one who never heard of anæsthesia it would naturally appear that a half-dozen Othellos were repeating the celebrated smothering scene, with variations. And yet this is a picture which is a truthful representation of what very frequently occurs as a preliminary to a surgical operation.

When we are ready to acknowledge that this crowding process is unnecessary, we are prepared to ask if it is not a trifle cruel.

Every surgeon of experience has proved the utility of gradual etherization to begin with. Long, deep inspirations of the vapor mixed with atmospheric air—the sponge held a little distance from the face—have been followed rapidly by complete insensibility. When this stage is reached the cone containing ether can be placed over the mouth and nose of the patient. He then breathes only such air as is admitted through the apex of the cone and is necessarily saturated with ether. Under such circumstances profound anæsthesia can very frequently be induced with scarcely a struggle on the part of the patient. At least, if it is necessary to restrain his movements, he is wholly unconscious of it, and does not suffer bodily or mentally.

Another advantage of the gradual method of initiating etherization is the comparative tranquillity of

mind of the patient, a condition which of itself invites speedy insensibility with a corresponding small amount of subsequent excitement. On the contrary, nothing would naturally tend to excite a patient more than the idea that he was in danger of being suffocated. And nothing more forcibly conveys such an impression than the direct application of a sponge to the mouth and nose while the patient is conscious. But the danger of actual suffocation is far from being imaginary. Very often the operator is forced to remove the sponge, even during the first stage of anæsthesia, because there is an ominous hitch in the breathing. That the patient is oftentimes quickly rallied is to the credit of the ether rather than to the method of giving it. Again, this danger is not confined to the first or even the second stage, but is often witnessed when the patient is ready for the knife. It is perhaps unnecessary to remind most of those gentlemen who attend operations, how often artificial respiration is resorted to because the breathing is interrupted, the lips blue, the eyes staring, and the pupils dilated. When the cause for this is accurately estimated, it is generally found, except in operations around the mouth with its attending inspiration of blood, that the gentleman giving the ether does not appreciate his responsibility. In nine cases out of ten he is watching the operation and neglecting the anæsthetic. Generally some one of the spectators becomes nervous over the condition of the patient, and is able to give a warning in time. But some time the warning will come too late. We have seen so many patients who have been almost given up for dead while under the anæsthetic, that we have thought there was but a little farther for them to go. And this is the reason for saying a few words in season.

THE SANITARY CONVENTION AT DETROIT.

The Sanitary Convention undertaken under the auspices of the Michigan State Board of Health, met at Detroit, January 7th and 8th, and was a very successful affair. Many of the particulars in regard to it have been given in a previous issue. The prominent topics discussed were School Hygiene, Ventilation, Milk; Cooking-Schools, Adulterations, Abattoirs, Water-Supply, and Cosmetics.

The subjects were generally treated in a popular and practical manner, few being of a purely medical or scientific nature. Yellow fever received a dramatic portrayal from Dr. R. C. Kedzie, and the popular topic of neurasthenia was discussed by Dr. W. H. Rouse. Some most valuable suggestions were given by Mrs. Wm. Jennison on the subject of cooking-schools. The great usefulness of these institutions was shown, as well as their popularity wherever they had been properly introduced. They have become important educational factors in England, Scotland, France, Holland, Prussia, and Switzerland. Self-supporting schools also exist in this country in New York, Boston, Washington, Illinois, North Carolina, Indiana, and Kansas. The Bureau of Education has devoted a circular to the distribution of information concerning them. The medical press have of late been recommending that the doctor pay some attention to the kitchen. It becomes him, therefore, to keep his eye on the cooking-schools and the educational opportunities of the *cordon bleu*.

Two papers were read on subjects pertaining to school-hygiene. These were timely, and presented very forcibly the physical dangers that environ the growing child. There are few subjects in hygiene that better deserve study and active discussion.

The work of the Sanitary Convention, on the whole, was excellent, covering as it did a wide range of practical topics. It compares very favorably with that of the American Public Health Association, at Nashville.

A NEW RHINOPLASTIC OPERATION.

The operation for the replacement of a lost nose is one which, apart from its surgical importance, has always taken a deep hold on the public interest and imagination. A finely developed nose is the finishing touch with which evolutionary force crowns our physical structure. Its loss is an æsthetic as well as an olfactory one, and its restoration is a contribution of science to plastic art which for once brings out the two in a conspicuous harmony. Rhinoplasty is among the few operations in surgery to which a statue has been erected by public citizens.

The existence of this popular interest in rhinoplasty has recently been shown by a long article in a leading daily journal, describing an operation of this kind at Bellevue Hospital. The patient, a healthy young man, had lost his nose from a lupoid affection two or three years ago. The disease, having destroyed the nose, ceased to progress. The contraction of the cicatrices, however, produced ectropion in both lids. After waiting for over a year, as the disease did not show itself again, plastic operations for the relief of the ectropion were successfully performed by Dr. Sabine. These operations were followed, a short time ago, by one for the restoration of the nose, the middle finger of the left hand being used to supply the needed tissue. The nail of this finger was first removed, and its matrix cauterized. Then, at a subsequent period, the patient being etherized, an incision was made along the palmar surface of the finger, and the skin dissected back on either side. These flaps were united by fine sutures to the sides of the nasal openings. During the operation the patient was nearly strangled by the blood which poured through the nares into his larynx. Laryngotomy was instantly performed, and relief thus given. The operation was then finished, and the hand firmly bound to the face by plaster-of-Paris

bandages. The patient has, we believe, since been doing well. As union takes place, the digital arteries will be tied, and eventually the finger amputated. Such further operations as are necessary for securing greater symmetry and beauty to the new organ will be performed.

It should be noted that a full description of this operation appeared in the *Herald* and the *Times*, and yet no surgeon's name was introduced. This is an evidence of good taste on the part of all concerned that is very commendable.

DISCUSSION OF LUNACY REFORM.

We publish elsewhere a letter from Dr. L. C. Gray, presenting the subject of lunacy reform, and asking that our columns be thrown open to a full discussion of both sides of the question.

We have no prejudice in this matter, and have always been ready to publish any proper communication concerning it. We have long been sincerely convinced that the care and treatment of our insane were very imperfect. It seemed due to the profession that the matter be agitated, and improvement secured, if possible. This position we took long before the birth of the Neurological Society's petition and of the Albany Committee. That our views agree with those of that Society in the points indicated by our correspondent, is a pleasing coincidence which we are happy to admit. That they coincide, however, with the method and matter of its ill-fated petition, with its unhappy mode of getting signers for the same, with the newspaper notoriety of some of its charges, or with the wisdom of its management at Albany, we cannot so fully agree.

We have, however, every confidence in the essential sincerity and earnestness of the Society's efforts for lunacy reform. Evils exist. Reform is necessary to our reputation as an enlightened and humane State. These facts are to be impressed upon the public until a sentiment is aroused which will demand a change. The Neurological Society has certainly done good work in arousing this public sentiment, and in collecting and presenting facts to justify it. We hope it may do work in future which will abate some of the distrust which a few of its acts in the past have, perhaps unjustly, aroused.

Meanwhile, we can give a moderate space to communications, *pro* and *con*, on the subject of lunacy reforms.

ATTEMPT TO PROHIBIT VIVISECTION.

On January 21st, Mr. Bergh had a bill introduced into the State Legislature to abolish vivisection. It reads as follows:

"SECTION 1.—Every person who shall perform, or cause to be performed, or assist in performing, in or upon any living animal an act of vivisection, shall be guilty of a misdemeanor.

"SEC. 2.—The term 'vivisection' used in this act shall include every investigation, experiment, or demonstration producing, or of a nature to produce, pain or disease in any living animal, including the cutting, wounding, or poisoning thereof, except when the same is for the purpose of curing or alleviating some physical suffering or disease in such living animal, or in order to deprive it of life when incurable.

"SEC. 3.—This act shall take effect immediately."

With the bill is a memorial, reciting the cruelties inflicted upon the brute creation by learned and scientific, but misguided medical men. It further states, what is atrociously untrue, that vivisection has been universally condemned by the more eminent members of the medical profession in Europe. It states that a bill was introduced into the English Parliament at its last session, but does not touch upon the fact of its failure to pass.

Both bill and memorial are too radical, unfair, and unreasonable to deserve of themselves serious attention. The cause of anti-vivisection has, however, reached a factitious importance from its constant agitation by bumptious and ill-balanced philanthropists. The medical profession ought, therefore, to keep an eye upon the present bill. Its passage would be a serious calamity.

NEW MEDICAL JOURNALS.

THE present month of January brings to our table eight new periodicals devoted to the educational advancement and literary needs of the medical profession. The appearance of such new journals is liable to suggest parturient analogies, and yet they are hardly apt. A new journal is not born in the manner of mortals, though it often meets their fate. It must spring forth at once in full maturity. It must show an immediate and well-trained activity; it needs at once the richest diet and the best typography; it requires its greatest wisdom at the outset. In such manner Minerva sprang full-armed from the head of Jove; but no recent obstetrical phenomena bear any resemblance to the appearance of a new periodical.

Among the octet to which we have referred, we notice first that Dr. Walsh, of Washington, announces a *Retrospect*, a quarterly compendium of American medicine and surgery. It is unique in that it confines itself to American work alone. The contents of the first number have a value which certainly proves that one need not go out of this country to compile a most excellent volume. As nearly one-fourth of the selections are taken from the MEDICAL RECORD, we can hardly say less than this.

The Alienist and Neurologist is also a quarterly journal, and is devoted to psychiatry and neurology. It is intended especially to subserve the wants of the general practitioner, and it is edited at St. Louis by

Dr. C. H. Hughes. The first number has interesting articles by Dr. Pliny Earle, on the "Curability of Insanity;" by Dr. G. M. Beard, on the "Sequences of Neurasthenia;" and by Dr. C. H. Hughes, on "Tendon Reflex." Several other original articles, and considerable editorial and selected matter, make the number before us a promising one. Although there is, perhaps, no particular craving, no passionate want, amongst general practitioners for psychiatrical information, we presume that the contributions to this journal find many interested readers.

Dr. S. M. Miller, of Philadelphia, publishes in that city *The Clinical News*, a national weekly journal of clinical medicine, surgery, and gynecology. The typographical appearance, as well as the contents of the first number, are extremely good. Dr. Miller has had an experience in medical journalism which will help greatly towards the success of his new venture. A lecture by Dr. Da Costa, and a communication from Dr. Wm. Goodell on ovariotomy, make up a portion of the original matter.

The January editorial wave, beginning at Chicago in the *Medical Gazette*, circled around to Philadelphia, undulated at Baltimore into the *Practitioner*, passed to Washington, St. Louis, and has even struck the prairies. The *Kansas Medical Index* is a journal which devotes thirty-two pages monthly to medicine, surgery, and the allied sciences. Dr. F. F. Dickman, its editor, writes a sensible salutatory in which he states that the influence of the journal shall be used in the praiseworthy object of getting laws for the protection of the profession in the State against quacks. We only wish that the text of the journal was as pure as the motives of its editor. It would certainly pain and surprise Dr. Morell Mackenzie to learn that he had written "a small monogram on Diptheria," and we hope it is not presuming to suggest that the uniform abandonment throughout the journal of the first "h" in diphtheria is not in accordance with the best orthographical models. Our esteemed contributor, Dr. Hemmingway, will be pleased to know that, under the title of Dr. Hemigrey, in the *Index*, his reputation as inventor of a plaster-of-Paris corset is spreading throughout Kansas.

The *Galveston Medical Journal* discontinued its publication in 1872, owing to three fires, bad health, and unpaid subscriptions. It has now resumed again under the editorship of Dr. Greensville Dowell. The present number is greatly superior in appearance to those of the former series, and, as the only medical journal in a State which has, it is stated, twenty-five thousand physicians, it certainly ought to succeed.

We would say, in conclusion, that we appreciate the hard struggle that must be made by every new journal before it can achieve popularity and success; and we have only kind feelings and good wishes for all efforts to produce honest journalistic work, and to satisfy an honorable ambition.

Reviews and Notices of Books.

THE PATHOLOGY AND TREATMENT OF VENEREAL DISEASES. By FREEMAN J. BUMSTEAD, M.D., LL.D., etc. Fourth edition, revised, enlarged, and in great part rewritten by the author and by Robert W. Taylor, A.M., M.D., Professor of Skin Diseases in University of Vermont, Surgeon to Charity Hospital, New York. One hundred and thirty-eight woodcuts. Philadelphia: H. C. Lea. 1879. 8vo, pp. 835.

IN perusing this volume the reader will be struck with the skill displayed in condensing and arranging the immense amount of material at the disposal of the authors. The great progress which has been made in the study of venereal disease in all its phases, since the appearance of the last edition of this work, necessitated not only thorough revision, but copious additions of entirely new material culled from the numerous original papers which have from time to time appeared during the past few years. There is some alteration in the arrangement of the subjects as compared with former editions, but this is of no consequence.

A new feature of the present edition is the introduction of several diseases resembling syphilis, and liable to be mistaken for it. The additions exceed in bulk one hundred and thirty pages, but are so carefully condensed that they might, under ordinary circumstances, have occupied twice that space. The author in his preface very properly refers to the invaluable aid he received from Dr. R. W. Taylor, whom he very appropriately speaks of as a gentleman "already well known in the United States and abroad by his original communications to our knowledge of venereal diseases, and who was admirably adapted, both by his own experience and by his extensive reading," to engage in such a work. Dr. E. G. Loring, as in former editions, has revised the chapter on diseases of the eye. The present volume, as a whole, has been so altered and improved, contains such an amount of new material, and is so well up to the date of our present knowledge, that it is safe to say that it is without an equal. The work is well printed and is got up in the usual style of the publisher.

THEORY AND PRACTICE OF MEDICINE. By FREDERICK T. ROBERTS, M.D., B.Sc., F.R.C.P., etc. With illustrations. Third American from Fourth London edition. Philadelphia: Lindsay & Blakiston. 1880. 8vo, pp. 1,041.

THE third American edition of this work presents a creditable appearance typographically, and is conveniently compressed into a single volume of decent proportions. The general plan of the work remains unaltered, although throughout there are evidences of careful revision. Particularly is this the case with the chapters relating to the absorbent and nervous systems. Altogether the work fully sustains its former reputation as an useful and thoroughly practical manual for the student and practitioner.

EXAMINATIONS BEFORE THE MEDICAL DEPARTMENT OF THE BRITISH ARMY.—At the recent examination for appointments in the medical department of the British army, seventy-four candidates presented themselves. Of these seventy-two passed, and were sent to Netley as "surgeons on probation."

Reports of Societies.

NEW YORK THERAPEUTICAL SOCIETY.

Stated Meeting, Dec. 19, 1879

DR. A. JACOBI, PRESIDENT, IN THE CHAIR.

PRELIMINARY REPORT ON THE TREATMENT OF CARIES OF THE ANKLE-JOINT BY THE EXPECTANT METHOD AND OTHERWISE.

DR. T. E. SATTERTHWAITE, chairman of the committee on "Surgical Procedures and Appliances," presented a preliminary report on the above subject, which consisted in a brief outline of the history and a summary of twenty-four cases of caries of the ankle-joint studied with reference to method of treatment, duration of suppuration, and final condition of the joint at a recent examination. The duty assigned the committee was to obtain data relating to the comparative methods of treating caries of the ankle-joint, whether by excision, gouging [chiselling and spooning], extension, rest, or the expectant plan. The present report related chiefly to the *expectant plan* of treatment, which was defined as follows: "If the joint is inflamed, entire rest is ordered; if abscess form, it is opened; if loose bone be detected, it is simply removed as if it were a foreign body interfering with the process of healing; if, in the further progress of the case, malposition of the parts is found, a support or brace is given to rectify the deformity."

The cases reported were furnished by Drs. V. P. Gibney, James L. Little, Reid and Blauvelt, and Dr. Satterthwaite. Two cases were omitted from the classification, because suppuration never occurred at any time in their course, and the disease underwent spontaneous resolution. After giving a sketch of each case, the following summary was presented: Of the twenty-two cases there was undoubted suppuration with caries or necrosis, or both, involving the bones of the tarsus or articular extremities of the tibia or fibula, or severally or combined. In two cases the patients died while under treatment; one from unknown causes, the other from disease disconnected from the joint affection. In four cases suppuration still persisted, but all were steadily improving. In fourteen cases the expectant plan was adopted, and all the patients had useful joints. The duration of suppuration varied from five or six months to five and a half years. Of the two remaining cases, one was treated mainly by extension; suppuration ensued only when the brace had been temporarily removed, but the final result was a useful joint in a little over two years. The committee were of the impression that caries of the joint must be studied apart from other joint troubles. In children, certainly, no matter how cachectic they were, the expectant plan would, if persevered in, in the great majority of cases accomplish a cure without subjecting the patients to the dangers of any such internal complications as tuberculosis or waxy change in the kidneys.

DR. V. P. GIBNEY referred to points which might be added to the report. The *first* related to *good results* from expectant treatment of caries of the bones in and about the ankle-joint in childhood. With reference to the treatment of such cases in adult life they had no data.

The *second* related to the *less frequent occurrence of amyloid degeneration* in connection with chronic suppurative disease of the ankle-joint than of other joints. In nearly fifty cases of caries of the ankle-joint, which had been under his observation, he had not seen one which terminated in amyloid degeneration of the liver and kidneys, as occurred in cases of prolonged suppurative disease about the hip and knee-joints. He thought surgeons might feel well assured that, in waiting for the processes of cure by the expectant plan, they need have no fear of amyloid degeneration, as in connection with chronic suppuration of other joints.

So far as treatment and prognosis were concerned, they were practically the same, whether the disease involved the ankle joint or other articulations about the joint. It was not possible, always, to make nice distinctions and locate the disease in this or that bone in that region. With regard to atrophy of the limb, he knew of only one case in which it had not remained as a permanent condition.

With regard to the pathology of the disease, he believed it to be an osteitis primarily; that sprains and falls were sequences, as a rule.

There was a difference between a perfect joint and a useful joint. If the term perfect joint was used in its strict sense it might lead to erroneous conclusions. In most of the cases which he had seen, the patients had recovered with useful joints, but there was always some imperfection of the joint which was permanent. He had never seen any cases which could have been regarded as perfect cures—that is, cures with absolutely perfect joints.

DR. F. A. CASTLE thought the conclusion regarding amyloid degeneration worthy of further consideration, and asked if the committee had been able to determine why suppuration of the ankle-joint should not be followed by that change the same as was suppuration of other joints.

DR. E. C. SEGUIN asked if the treatment in the cases reported had been conducted under antiseptic precautions. He also asked if there was a diminution in the faradic reaction of the muscles?

DR. SATTERTHWAITE replied that antiseptic precautions were not adopted, the only precaution taken being the use of a plaster-of-Paris splint in one or two of his own cases with fenestræ, to permit the passage of the oakum rope which was drawn through the diseased joint.

He further remarked that, as a rule, there was not much discharge in chronic disease of the ankle-joint, and, perhaps, that fact might have some bearing upon the question of amyloid degeneration. His conviction was, that considerable suppuration was necessary to the production of amyloid degeneration, and, besides, the suppuration in ankle-joint disease commonly had less duration than that dependent upon disease of other joints. The *average* duration of the discharge in the cases reported could be reckoned by months, whereas the *average* duration of suppuration in other diseased joints was, doubtless, much longer. The committee had no data relating to electrical reaction.

THE PRESIDENT said that he had, in a number of cases, applied the galvanic current, and had found that, when the swelling was very great, the galvanic irritability was diminished. He had explained the diminution by the simple fact that there was an unusual changed condition of all the tissues, and whenever the current had to go through different tissues it was weakened, therefore the reaction apparently diminished. But in cases in which the disease was inactive, only slight in amount, or was nearly cured, he had not found a difference with regard to

electrical reactions in the sound and the diseased limbs.

One reason why so little amyloid degeneration occurred in connection with chronic disease of the ankle-joint, might be found in the fact that, as a rule, the suppuration was superficial; if abscess formed, its contents were easily thrown off. Changes in distant organs were more likely to occur when bones were attacked by disease in or near their centres, where blood-vessels were numerous, large, and remained open. The process about the ankle-joint was not of that description: it was a caries, not a necrosis, and the blood-vessels did not remain open, and whatever pus existed was not liable to be pressed into the circulation as it was in disease of the more compact bones, and affected nearer their centres.

He accepted the expectant plan of treatment according to the definition given by the committee.

PHOSPHORUS IN SUBSTANCE AS AN AGENT IN THE NEW FORMATION OF OSSEOUS TISSUE.

He had for a long time treated such diseases, particularly caries of the ankle-joint, by the internal administration of *phosphorus in substance* for the purpose of facilitating the formation of bone. The effect of the phosphate of lime in that direction was a rather doubtful one; investigations relating to that question were not fully closed. Whenever phosphate of lime was administered, it at once appeared in the urine in large quantity, and it was, therefore, not quite plain how the administration of phosphates could contribute materially to the formation of new bone. But with phosphorus in substance it was different. Some seven or eight years ago he began the treatment of the class of affections under consideration by the use of phosphorus in substance, in accordance with hints given and results obtained experimentally by Wegner of Berlin, who fed a certain number of rabbits with minute doses of phosphorus, and found that fractures were united in a much shorter time than in other rabbits that received no phosphorus, and that the result was obtained uniformly. In cases, therefore, in which it was desirable to increase the amount of bone thrown out from the periosteum—for example, in rachitis, and also in carious disease of bones—he adopted the expectant plan defined by the committee, and gave phosphorus in substance from the beginning, and he was positive that a large number of cases had recovered in the course of four to six months, at farthest, within one year from the time the treatment was begun. The phosphorus should be given before and after suppuration had begun, and he thought it deserved much more attention than it had yet received. The average dose was from $\frac{1}{100}$ to $\frac{1}{100}$ of a grain, three times a day, dissolved in oil.

It was not adapted to acute, but to subacute or chronic bone diseases, and was applicable in incipient Pott's disease.

Dr. Mary Putnam-Jacobi referred to cases of excision of the elbow-joint, in which the phosphorus treatment was adopted, and they were entirely healed within six months after the operation.

The Society then adjourned.

The Lettsomian Lectures for the present season, before the Medical Society of London, are to be delivered by Mr. W. F. Tevan. Subject: "The Treatment of Stricture of the Urethra, Enlarged Prostate, and Stone in the Bladder, with Special Reference to Recent Progress."

WEST CHICAGO MEDICAL SOCIETY.

Regular Meeting, November 24, 1879.

The Secretary read a paper written by Drs. Christian Fenger and J. H. Salisbury, on

DIFFUSE MULTIPLE CAPILLARY FAT EMBOLISM OF THE LUNGS AND BRAIN AS A FATAL COMPLICATION IN COMMON FRACTURES, ILLUSTRATED BY A CASE.

A woman, 45 years old, had received a fracture of the left femur, through the upper part of the shaft. The next day after the injury the patient was restless, but did not suffer much pain. Next day the respiration became hurried and the patient was noticed in the morning to be sleeping in the afternoon the sleep appeared to be a sort of coma, from which it was difficult to rouse her. The pupils responded to light. Toward evening slight spasm occurred; at 7 P.M., the pulse was 112, and weak; temperature, 101¼° F.; respiration 40, and regular; the coma constant; the face pale, and lips bluish. The thorax moved naturally.

Auscultation showed the heart-sounds to be natural, and the presence of the normal vesicular breathing; no râles were heard.

The day following, the symptoms showed little change, except the presence of coarse râles in the chest. Dr. Fenger made the diagnosis of fat embolism of the lung; prognosis fatal.

She died the same day.

Dr. Salisbury noticed about the patient an indescribable sweetish odor.

An autopsy made twenty hours after death. In the pericardium was about half an ounce of thin, yellow fluid. The heart was flabby, and its muscle grayish; the heart and large vessels contained dark fluid blood, as in strangulation. Small drops of fat were swimming on the blood. In the subpleural tissue were small ecchymoses, some as large as a pin's head. The whole surface of the left lung had a peculiar red, spotted appearance, most anteriorly; the cut surface of the lung had a similar appearance. "Some parts were quite white, which was due partly to anæmia, but chiefly to emphysema along the anterior borders." The posterior part of both lungs was congested and œdematous, but there was no capillary bronchitis. At the base of the right lung were several large ecchymoses, mostly subpleural.

The large ventricles of the brain contained a little clear, serous fluid.

"On the cut surface of the hemispheres, especially in the white substance," were numerous ecchymoses, "small, round, dark blood-red points," the largest a millimetre in diameter. These were found throughout the white substance and somewhat in the gray. Similar spots were discovered in the cerebellum, in the anterior part of the pons varolii and corpus callosum. The cerebral vessels were normal.

On the surface of the spleen, which was not enlarged, were several superficial hemorrhages of one-sixth inch in diameter. In the fundus of the stomach were several small ecchymoses.

A transverse fracture of the upper part of the left femur was found, surrounded with coagulated blood, which filled the intermuscular spaces. The substance of the fractured bone was normal. The marrow of the shaft was yellow from infiltration of fat, as was usual in old people. There was no evidence of inflammation, nor were there coagula in the large veins in the neighborhood. Dark fluid blood filled

the femoral vein, in which no fat-drops were discoverable.

Examination with the microscope showed that, in pieces cut from the surface of the lung the small arteries and some capillaries of the pleural tissue appeared as a whitish yellow refracting network from being full of liquid fat. Tissue from the interior of the lungs showed a "fine, more or less complete injection of liquid fat in the network of capillaries surrounding and protruding into the air cells."

Examination of the ecchymoses in the brain showed the small arteries and their centres to be filled with liquid fat. In none of the other organs of the body was fat discoverable in the smaller vessels.

The first notice of the danger that fat from the marrow of bones may find its way into the blood-vessels in extensive fractures was by Prof. Trenker, in Germany, in 1862. Since then it had been found that fat embolisms of the lungs occurred in almost every case of extensive fracture. It was the rare exception, however, for the fat to be present in such quantity as to give rise to serious disturbance. It had been found in Strasbourg that slight diffuse fatty embolism was present in "ten per cent. of a series of 250 dead bodies."

Sinclair had studied 140 reported cases, and found the embolisms to be due to extensive contusion of soft parts containing an abundance of adipose tissue, to fractures with extensive lesion of marrow of the bones, or to osteomyelitis. The most severe cases were due to fracture.

The symptoms of the complication, as Sinclair gave them, were: unexpected rapidly increasing general debility; then symptoms of non-aëration of the blood; rapid respiration (40 to 60 per minute); weak and rapid pulse; râles in large bronchi; dyspnœa and sometimes reddish foam emitted from the mouth. The patients grow pale, cyanotic, cold; coma comes on, and death, sometimes preceded by vomiting and spasms.

It was not uncommon to find thrombosis of the larger veins around a fracture; thrombi always formed in the smaller veins, causing, probably to some degree, the œdema so common. From this came, in a very few cases, embolism of the lungs; but this always occurred, if at all, later than forty-eight hours after the injury.

In a large number of cases of fatty embolism death had occurred suddenly, and in a larger number of cases within twenty-four hours.

The prognosis in such cases would depend upon the amount of fat in the vessels and upon the strength of the heart's action.

The treatment should be stimulative, in the hope that the heart might force the fat through the capillaries. The fractured ends of bone should be kept still to prevent rupture of the fat sacs and the marrow, and the entrance of the fat into the vessels.

Microscopic slides of the lung in this case were exhibited, showing vessels filled with fat.

After some discussion of the case, the Society adjourned.

WHO FIRST DISTINGUISHED TYPHUS FROM TYPHOID FEVER?—A discussion is going on in England as to who was the first to appreciate and teach the above distinction. Priority is claimed for Mr. A. P. Stewart and Dr. John Reid, on the one hand, and for Dr. Robert Perry, of Glasgow, on the other.

The evidence is rather in favor of the latter, who taught the new views in 1836–37.

ABSTRACTS OF FOREIGN SOCIETIES.

BRITISH.

CLINICAL SOCIETY OF LONDON

DECEMBER 12, 1879. E. H. GRIESINGER, M.D., F.R.S., PRESIDENT.

Analysis of Forty-five Cases of Excision of the Hip-Joint.—MR. CHURT prefaced his remarks by stating that the operation could be made more successful, when it was performed before abscesses had opened, than later. The result of his analysis showed that, in forty-five operations which had been performed, eighteen cases were cured; nine patients were relieved, but had died from causes not due to the operation; eleven were still under treatment or observation; one died from diphtheria; six had died from causes either directly or indirectly referable to the operation. In fourteen patients the joints were movable, and could be flexed or extended; in nine the affected limb could be adducted and abducted to a certain degree, and flexion could be performed to a considerable extent; in four of the cases the patient could stand firmly and steadily on the limb without assistance. In all the cases the limb was straight, and there was no permanent flexion of the pelvis. The patient could stand erect, and without any curving of the spine. The causes of death directly referable to the operation were as follows: three from pyæmia; one from septicæmia, and one after suppuration in the bone following erysipelas. If fluid was present in or about the joint, accompanied by starting pains, an incision should be made; and if struinous disease or necrosis was found to be present, excision should be performed. The causes of failure were: delay in operating; not removing enough of the diseased parts; not allowing a free exit for the discharge of pus, etc.; and not operating antiseptically.

A New Method of Excising the Hip-Joint.—MR. R. W. PARKER described the following method of performing excision at the hip-joint. An incision is made from the anterior superior spine of the ilium downward, along the anterior border of the great trochanter, cutting between the sartorius and rectus muscles on the inner side, and tensor and glutei on the outer side. The diseased bone is sawn off *in situ*, and then extracted with a sequestrum forceps. The key-hole saw is used, so that the periosteum and adjacent structures may not be injured. One advantage claimed for the operation is that cutting across the large muscles attached to the great trochanter is avoided. He believed that an exploratory incision should be made into the joint, when the disease had progressed for three months whilst under treatment, and signs of destruction of the joint had made their appearance. If this plan were adopted he thought that more satisfactory results would follow from operating.

In the discussion which followed, MR. HOLMES said that he did not believe that the best plan of treatment of abscesses in the vicinity of joints was to lay them open antiseptically; he preferred waiting until there was sufficient evidence of destruction of the cartilage. He did not believe that a patient could stand on the leg after excision of the joint, as there was too much mobility. MR. HULKE thought that, if the local disease was in an advanced stage and the patient was in good health, excision was expedient; but, if it were in the earlier stages of the disease and the patient was losing strength, the operation

should not be performed. He advocated the use of chloride of zinc for washing out the cavity, as did Mr. Lister, who followed with some remarks. In excising at the hip-joint, Mr. Morrant Baker always cuts through the neck of the femur and leaves the trochanter, as by so doing the limb is stronger. He said that a perfect result was not always obtainable, and that a great deal depended upon the selection of proper cases to operate on.

MEDICAL SOCIETY OF LONDON.

Stated Meeting, December 15, 1879. Dr. Cockle, President, in the Chair.

Contamination of Atmospheric Air by Arsenical Pigments.—Mr. W. Foster read a very interesting paper on the above subject. Dry Scheele's green, heated to 50° C., was subjected to a current of atmospheric air. The air, after being filtered through cotton wool, was passed through a caustic potash solution. When examined by Marsh's test, the potash solution was found to be free from arsenic. Deal-shavings coated with paint composed of Scheele's green, linseed oil, and turpentine, were placed in a vessel, and a current of atmospheric air passed through for a number of days. After passing the air through two bulb-tubes—one containing nitrate of silver in solution, the other a caustic potash solution—an examination was made, and no arsenic found. These experiments tend to show that dry Scheele's green does not give off arsenic at ordinary temperatures, or that a paint of Scheele's green, in the process of drying, gives off arseniuretted hydrogen. Contamination of the atmospheric air with dust from pigments containing arsenic, has connection with the foregoing subject. Dr. Ewart thought that arsenical poisoning might be due either to sewer-gas, or other gases, proceeding from houses in which such paints or fabrics were used. Mr. Foster could not agree with Sir J. Favrer that arsenically tinted chintzes were innocuous. He believed that poisoning produced by these fabrics was caused by a detachment of the actual particles of the pigment.

Œdema of the Glottis.—Dr. De Havilland Hall presented the following history of a case seen by Dr. Lowe. The patient, a boy five years, was well up to the morning of the day previous; he then complained of not feeling well, but went out in the afternoon and appeared as well as usual. He vomited after tea; slept well from seven in the evening until eleven; vomited twice between eleven and one; died at 1.30. On examination after death, the most prominent feature was found to be œdema of the glottis, with a deep red appearance of the posterior surface of the epiglottis and mucous membrane of the larynx; there was a distinct circumscribed hemorrhage into the submucous tissue of the posterior wall of the larynx, from the level of the left false vocal cord to the upper edge of the incised cartilage. The pupils were dilated slightly, face and neck greatly congested, and a yellow colored fluid oozed from the mouth. The most remarkable feature of the case was the absence of perceptible dyspnœa and cough, the death being attributed to spasm of the glottis, caused by entrance of vomited fluid into the larynx. Dr. Dowse thought that the symptoms were due either to scarlet fever or some malignant poison, he having seen similar cases to the one described.

PATHOLOGICAL SOCIETY OF DUBLIN.

Saturday, December 6, 1879. E. H. Bennett, M.D., President, in the Chair.

Multiple Pyæmic Abscess of the Right Lung and Liver.—Dr. Walter G. Smith described a case and presented the viscera of a woman 45 years of age, whom he had treated at the Adelaide Hospital. The patient was a well-built woman, who had always enjoyed good health until the commencement of August, when a severe gnawing pain developed itself in the right shoulder, knee, and leg. She had not met with an injury, nor had any operation been performed on her. About the beginning of September she had an attack of dyspnœa, which increased in severity; it was unaccompanied by profuse sweating, nor were there any rigors. On physical examination rhoncus and sibilus were discovered over the right side of the chest. Pulse 150. Slight jaundice, purpuric spots over the body, and pyrexia. The line of dulness of the liver did not appear to be altered. She became delirious, and died four days after admission. On post-mortem examination, the following appearances presented themselves: left lung congested, but no consolidation or adhesions. There was consolidation of the upper lobe of the right lung, which was very friable, and broke down in detaching it from its adhesions. There was no effusion into either pleural sac, nor was there any sign of peritonitis. The heart was small and very soft, presenting the appearance seen in fatal cases of typhus fever. Hæmorrhagic spots were to be seen in the endocardium. In the aorta, on the under surface of the mitral valves, around the coronary orifices, and in the floors of the sinuses of Valsalva, were atheromatous deposits, which did not exist on the free edges of the sigmoid valves. The liver was soft and friable, and not greatly enlarged, the surface being of a buff yellow and presenting numerous hæmorrhagic points and yellow patches, which gave it a mottled appearance. On making a section of the organ, many red consolidations were to be seen, soft in consistence and exuding a sanious fluid, brownish in hue. No ulcer of the stomach could be found, nor were there any gall-stones present.

Hypertrophy of the Heart—Hydrothorax—Cirrhosis of the Kidneys.—Dr. J. W. Moore exhibited the lungs, kidneys, heart, and part of the liver of a hodcarrier, aged 19. Both kidneys presented an extensive granular degeneration, but no history of intemperance, lead-poisoning, or gout. The heart was hypertrophied and weighed fifteen and a half ounces when freed from clots. There was dilatation of the left ventricle and of the mitral valves, but no endocarditis. There had been a mitral systolic murmur before death. There was hydrothorax and cirrhosis of the liver.

METROPOLITAN COUNTIES' BRANCH: SOUTH LONDON DISTRICT.

Wednesday, October 22, 1879. S. O. Habershon, M.D., Chairman.

On the Employment of Double Extension in Cases of Disease and Injury of the Spine and Pelvic Joints.—Mr. John Wood said that the following benefits resulted from the application of extension in the treatment of joint diseases: 1. Absolute rest, preventing the muscles from acting; 2. Removal of pressure on the surfaces of the joints; 3. Prevention of displacement by muscular action; 4. Removal of tension and

demonstration of irritation of the nerves. He found that Beck's plan of counter-extension, by means of a stirrup applied by adhesive plaster, produced an unequal action of the muscles of the spine, as the extending force acted in a one-sided manner. To overcome this objection, he was in the habit of applying weights to both limbs, and causing double extension. He had made use of double extension both in sacro-iliac joint disease and in disease of the lower dorsal and upper lumbar vertebræ, with good results.

Pneumonia of the Apex of the Lung.—Dr F. T. Roberts read a paper on the above subject, in which the following were enumerated as the causes of the disease: 1. As a result of direct injury from fracture of the upper ribs. 2. From extension of inflammation from the lower to the upper lobe. 3. Secondary to phthisical diseases affecting the apex of the lung. 4. In connection with the pleuritic effusion, and, perhaps, with other conditions causing condensation of the lung tissue. 5. In consequence of hemorrhage into the upper part of the lung. 6. As a primary or idiopathic affection. He believed that nature would do a great deal toward accomplishing a cure, and advised cessation from work, quinine, and counter-irritation by means of small blisters and iodine. Dr. F. Taylor said that he had met with the disease more frequently in children and in connection with measles.

FRENCH.

ACADEMY OF MEDICINE.

DECEMBER 23, 1879. M. Richet, Presiding.

Local Vacations of Temperature in Disease.—M. Peter read a paper in support of his claim to priority in pointing out the local variations of temperature in disease. The subject of local abnormal temperatures began to occupy his attention in 1864, and the results of his observations were published in the following year. Since then he has published several articles on this subject, the last of which was noticed in The Record for Jan. 17th. While insisting on his right to the credit of priority in this matter, M. Peter does justice to the valuable labors of Dr. E. Seguin in the same field of inquiry.

M. Colin read a paper entitled *Experimental Researches in the Mode of Development of Passive Dropsies.* The following are his conclusions: When the venous circulation in animals is obstructed by mechanical obstacles, œdema or dropsy is produced as soon as the pressure exerted by the vascular walls on the blood-column is raised to the maximum point. Ligature, compression, or partial obliteration of a vein, gives rise to œdema or to some form of serous effusion, whenever collateral vessels are not able to carry off a sufficient proportion of the blood. Ligature of the jugular causes infiltration in animals which have only one vein on each side of the neck, and not in those which are provided with a deep vein accompanying the carotid. The same is true of the saphenous and the superficial veins. The lymphatics may undoubtedly play an auxiliary rôle in the genesis of partial infiltrations, if a large number of them are compressed by tumors or by inflammatory exudations, or if a morbid condition of the glands renders them partially impermeable to the lymph. The lymphatics may also contribute to the development of general infiltrations, when the thoracic duct is compressed, or is obstructed by clots derived from blood that has been forced into the duct by the violent reflux attendant on cardiac affections. The vaso-motor nerves do not seem to take any decided part in the production of passive dropsies. The vascular paralysis caused by section of these nerves does not sensibly favor the exhalation of the serosity of the cellular tissue when it is combined with hesitation of the veins. Moreover, it never causes infiltration when its action is isolated and independent of mechanical obstacles to the venous circulation.

SOCIETY OF SURGERY

DECEMBER 10, 1879. M. Tarnier, Presiding.

Elytrorrhaphy for Prolapsus.—M. Panas read a report on a specimen presented at the last meeting by M. Zancarol. The case was one of elytrorrhaphy performed according to M. Le Fort's plan for complete and consumed incurable prolapsus of seven years' standing. The patient, a woman thirty-six years of age, had been confined three times; the prolapsus, which was complicated by rupture of the perineum, dated from the last labor. M. Zancarol made two lateral vaginæ by uniting the anterior and posterior vaginal walls in the median line. He introduced twelve points of suture—five on each side, one at the internal, and one at the external end of the denuded surface. The womb was replaced gradually as each point of suture was introduced. This is the third case of this operation of which the results have been reported; the other two were reported by M. Le Fort and M. Panas. In this case the success was perfect; the patient died suddenly twenty-eight months after the operation, and M. Zancarol was fortunate enough to obtain the specimen. Seven months after the first operation, he had performed perineorrhaphy to correct a slight rectocele. M. Panas claimed that M. Le Fort's operation gives excellent results, and remedies effectually a very grave infirmity. The sole objection to it is that, as a rule, it is only applicable to women of advanced age, who cannot hope to become pregnant again. In view of the difficulties presented in the removal of the sutures, he recommended the use of catgut sutures.

M. Tillaux said that carbolized silk would be even better than catgut, as it is more supple and stronger, and is absorbed almost as readily.

DECEMBER 24, 1879. M. Tarnier, Presiding.

M. Dezanneau reported *fifteen cases of ovariotomy* performed by himself. Four of the patients died—two from peritonitis, and two from depression of the vital forces and shock. He insisted on the importance of always directing the instrument against the tumor in separating adhesions. He is disposed to follow the example of those surgeons who leave the pedicle in the abdominal cavity. As a preventive of peritonitis, he recommended absolute immobility. In cases where meteorism was troublesome, puncture of the stomach and intestines had given him excellent results. He preferred a small external incision, as recommended by Spencer Wells and Koeberle.

M. Duplay criticised one of the manipulations employed by the reporter, viz.: the introduction of the hand into the cavity of the cyst to break up the partitions between the secondary cavities. He claimed that this practice is liable to give rise to severe hemorrhages.

M. Tillaux stated that he had removed during the year two enormous cysts, and that he had been compelled, in both cases, to introduce his hand into the cyst to break up the various partitions. He had no hemorrhage in either case.

M. Gillette thought that puncture of the stomach, to relieve pneumatosis, was not an entirely innocuous operation. He prefers to use the œsophageal sound.

Correspondence.

THE SIZE OF THE BLOOD-CORPUSCLE.

War Department, Surgeon-General's Office,
Washington, D. C., Jan. 19, 1880.

To the Editor of The Medical Record.

Dear Sir:—Your excellent journal, of which I have long been a reader, has always appeared to me to manifest such fairness in its editorial department that I cannot for a moment believe that it was your intention to misrepresent me in the editorial of January 10th, entitled "Further Expert Testimony at the Hayden Trial;" and yet you have actually done so by making use of the newspaper reports of my testimony in that case, in which, as is usual with newspaper reports of scientific testimony, there are a number of inaccuracies, and erroneous impressions are made as to several matters by the presentation of single sentences without the context. Will you not, therefore, as a matter of justice, give equal publicity to the following brief corrections and a few words of explanation?

You write: "Dr. Woodward testified that the size of human blood-corpuscles in different persons was as variable as that of the individual; and the size also varied greatly even in the same animal." What I actually testified as to these points was substantially as follows: That the largest human corpuscle I had ever measured in any individual, including all ages, was 400 millionths ($\frac{1}{2500}$) of an inch in diameter, the smallest 222 millionths ($\frac{1}{450}$). I said that I did not, however, for a moment believe that these dimensions represented the extreme limits, for G. Hayem (Rech. sur l'anat. normale et path. du sang, Paris, 1878, p. 44) has recently affirmed that in chronic anæmic conditions he has measured them as large as 12 or even 14 micromillimetres (the latter = 551 millionths of an inch), and as small as 2.5 or even 2.2 micromillimetres (the latter = 86 millionths of an inch). But, even taking the limits I had myself measured as the extremes for healthy individuals, the difference in size between the largest and the smallest human blood-corpuscles was about as great relatively as the difference between the shortest and the tallest adult man; and as in both cases all possible intermediate sizes occur, I held that we are no more likely, by measuring ten, or fifty, or a hundred, or even a much larger number of corpuscles, to obtain an average size that will agree with the next set of similar measurements, than we are by measuring the height of as many men likely to obtain an average which will agree with the average height of as many more individuals measured elsewhere.

It was to this cause chiefly that I attributed the considerable differences between the statements as to the average size of the human red corpuscles published by the highest microscopical authorities during the last few years. You make me say: "The most recent authoritative measurements made the average diameter $\frac{1}{3500}$ of an inch." What I really said was, that while many English and American microscopists continued to assume the infallibility of the alleged average size of 312 millionths ($\frac{1}{3200}$) of an inch, propounded by Gulliver in 1848, such able French microscopists as Cornil and Ranvier (Manual d'histologie pathologique, Part II., Paris, 1873, p. 498) placed it as low as 7 micromillimetres (*i. e.*, 275 millionths, or $\frac{1}{3630}$ of an inch). The commission of the French Société de Médecine Légale (Annales d'hygiène publique, T. 40, 1873, p. 194), composed of Messrs. Miahle, Mayet, Lefort, and Cornil, which reported, June 9, 1873, placed it at 7.5 micromillimetres (*i. e.*, 295 millionths, or $\frac{1}{3390}$ of an inch), with which Hayem (p. 43, op. cit. *supra*) and other recent French authorities agree. On the other hand, J. Pelouze and E. Frémy (Traité de chimie, etc., 3me éd. entièrement refondu, T. VI., Paris, 1865, p. 492) place the average as high as $\frac{1}{2500}$ of a millimetre (*i. e.*, 328 millionths, or $\frac{1}{3050}$ of an inch), while the average usually accepted in Germany, that of Welcker (Zeitschr. für rat. Med., Bd. xx., 1863, S. 257), is intermediate between the foregoing, viz., 7.74 micromillimetres (*i. e.*, 304 millionths, or $\frac{1}{3289}$ of an inch).

As for myself, I did not pretend to make any general statement as to the true average size of the human red corpuscles, my experience being that the averages obtained by the most careful measurements of any moderate number of corpuscles differ considerably. As to this, I cited the figures I have published (Amer. Jour. of Med. Sci., January, 1875, p. 151, and Trans. of the Amer. Ass'n, vol. xxvii., 1876, p. 303), and added that several other average measurements of human blood recently made by me with every possible precaution also differed from each other considerably (as will be seen below).

As to the red blood-corpuscles of the dog, I testified that I had measured in this animal single corpuscles as large as the largest I have ever myself measured in human blood, others as small as the smallest in human blood, and every possible intermediate size. Here, too, on taking averages, I had arrived at variable results, as Gulliver himself did long ago. I explicitly stated that the general average of all the measurements I had ever recorded for the dog was somewhat smaller than the average of all I had recorded for man. Yet some of the averages I had found for fifty or a hundred, or even more, canine corpuscles were larger than the smaller averages obtained for human blood; indeed, occasionally rivalled the larger. I mentioned further that I agreed with the view of L. Périer (Bull. des travaux de la Soc. de Pharm. de Bordeaux, 1877, p. 282 et seq.) that the blood of quite young dogs (up to a month or two old) more frequently contained very large corpuscles, and gave averages equal to those obtained from human blood, than was the case with older animals. I had, since the trial commenced, mounted several slides of the blood of a pup three weeks old, in which corpuscles measuring 400 millionths ($\frac{1}{2500}$) of an inch in diameter were by no means rare. (I may add that I have these slides, and will take pleasure in showing such corpuscles to any competent microscopist.) Fifty corpuscles on one of these slides gave an average of 326 millionths of an inch; forty corpuscles on a slide from another pup of the same age gave an average of 320 millionths of an inch; while twenty corpuscles from the blood of a full-grown dog gave an average of but 300 millionths of an inch. Measured with the same instruments, fifty corpuscles of my own blood gave an average of 324 millionths; forty, from another individual, gave an average of 327 millionths; twenty, from another, gave an average of 316 millionths. I added that all these measurements were made with a new Zeiss homogeneous immersion $\frac{1}{18}$ and a cobweb micrometer, the power being such that each division of the micrometer-wheel equalled $\frac{1}{7500}$ of an inch. Every corpuscle in the group selected was measured, each being first brought to the centre of the field for

the purpose, and those corpuscles which appeared to be rather more than perfectly spherical were measured in the long and short diameters, and the mean taken. In short, every known precaution was employed to secure accuracy.

In view of all the foregoing considerations, I did not think the microscope put it warranted in attempting to distinguish on oath between human and canine blood, even on preparations carefully made from fresh blood. If he makes a guess based on the average size of fifty or a hundred corpuscles, he will, no doubt, often come out right; but he will also occasionally come out entirely wrong, and the difficulties in the case of corpuscles soaked out from dried stains are of course still greater.

You remark: "Dr Woodward took in general a very pessimistic view of micrometry;" and again: "The impression given by Dr Woodward as to the exceeding vagueness and inaccuracy of microscopic measurements was unjustifiably strong." I do not think, Mr. Editor, you would have made either remark had you heard what I actually said. I pointed out, it is true, several important sources of error that would lead to very mistaken results, if neglected, besides the differences between micrometers, on which you very properly insist; but I also expressed the opinion that if every precaution *was* taken, the size of each individual corpuscle measured could be obtained with our best modern resources to within two or three millionths of an inch, which, I may note here, is about as close as Professors E. W. Morley and W. A. Rogers (Proceedings of the American Academy of Arts and Sciences, 1878, p. 164 et seq.) found it possible to measure the distances between sharply-defined ruled lines on glass. What I did express doubts about was the significance of averages taken from the measurements of comparatively small numbers of bodies so variable in size as blood-corpuscles are. And, indeed, I may say here that I am glad to admit, nay, I go further, I insist, that micrometry has considerably advanced since the days when Gulliver fixed the $\frac{1}{44}$ of an inch as the average size of the red corpuscles of human blood, and Kölliker asserted that ninety-five per cent. of those corpuscles are of the same size. (By the way, Kölliker also stated that the average diameter of the red corpuscles was $\frac{1}{140}$ of a Paris line, *i. e.*, 296 millionths of an inch. Manual of Human Mic. Anat., London, 1860, p. 519.)

Finally, Mr. Editor, let me express my satisfaction that in concluding your article you express your disbelief in the possibility of being able to distinguish human blood "in any particular case with sufficient certainty to swear away a life." With this, at least, I heartily agree, and I may say that it is my intention as soon as practicable to publish such additional details with regard to this matter as I trust will lead to more general acceptance of that sound view.

Very respectfully, your obedient servant,

J. J. Woodward,
Surgeon U. S. Army.

Dr. B. W. Richardson's Embarrassment.—By the will of Sir Walter Trevelyan, a large amount of wine was bequeathed to Dr. B. W. Richardson, with directions that it be used for scientific purposes. Dr. R. is a strict teetotaller himself, and finds it difficult to dispose of the wine in any way that will not violate the wishes of the testator or his own principles. It is expected that the hospitals will be the recipients of it.

LUNACY REFORM

To the Editor of The Medical Record.

Dear Sir:—It has been a matter of gratification to me, as I have no doubt that it has also been to my colleagues interested with me in our present movement, to perceive that you are in accord with the committee of the Neurological Society in regard to asylum abuses, notwithstanding there may be differences of opinion between us on minor points. Your editorial of the 17th ult. expresses our views quite accurately. In it you state very properly that our asylums are too often large and overcrowded, or consist of county poor-houses or wretched local institutions, in which the attendance and diet are of the most miserable order; that the number of assistants is too small, and their training frequently inadequate; that there is frequently a lack of proper appliances; that there is too much mechanical restraint, too little exercise, amusement, or employment, too much herding of acute and chronic cases; that few institutions are capable of doing good pathological work; finally, that, to employ your precise words, "clinical and didactic instruction in insanity is at its lowest possible ebb, and it is for this reason, in part, that so little attention or interest can be aroused among medical men on the subject of lunacy reform." You then go on to recommend that the objects of the present movement should be the erection of smaller asylums, capable of holding 250 or 300 patients, with an efficient visiting staff, and trained nurses in sufficient numbers to render restraint a rarity; that the medical staff should be fuller, better paid, and better qualified; that the acute and chronic insane should be treated apart; and that "the clinical and pathological material should be utilized as much as possible for the benefit of students and physicians." These are exactly our views, Mr. Editor. Place this editorial side by side with the petition to the legislature, and you will find that you have framed in your own language the same thoughts that have been given voice in that petition. I regard this as a fortunate coincidence, for it is a happy demonstration of how earnest men, differing widely in their methods, have yet been forced to identical conclusions concerning the present asylum management. From personal knowledge of asylums, from conversations with medical *attachés* of asylums, from such public sources of information as reports of medical officers and newspaper articles, as well as from our knowledge as neurologists that but scanty pathological and clinical work was being done in our costly institutions, we had become convinced, as you have become convinced, that great defects existed in our present asylum system, and that it was high time these faults should be rectified. For divers and various reasons the inauguration of a movement of reform was not to be expected from the superintendents. Against these gentlemen personally I have nothing to allege, and I know that there are those among them at whom no one can cavil—men who are honestly desirous of improvement, conscientious, well-informed, and laborious; but even the best must be hampered necessarily by their position. They hold their places on tenures that are partially or entirely political, and as they are usually cut off from private practice, they depend mainly or entirely upon these places for a livelihood. Under such circumstances men are not likely to sacrifice themselves. Upon whom, then, was to devolve the uninviting task of setting in motion a movement of reform? The New York Neurological Society took it upon itself to

perform the duty, and with eminent propriety. The New York Neurological Society is the only neurological society in the United States, with the single exception of the American Neurological Association, which meets, however, only once yearly, and is therefore not a body to guide an undertaking of this sort. The active members of the New York Neurological Society are men who have made special study of neurology, as the word is used in its proper sense to mean disease *of all nervous organs*, including insanity, which, as you and your readers do not need to be told, is as much a disease of the brain as apoplexy or meningitis. Were they not, therefore, a proper association to take charge of the matter? Every man of just mind cannot but assent. The society thereupon set to work to attack the system. It has never had it in its purview to attack men, especially those who were not responsible for the system. At meeting after meeting of the committee the opinion has been repeatedly and strongly expressed that personalities should be rigidly eschewed, except when it was necessary to mention names to substantiate facts or repel personal attacks. A petition to the legislature was gotten up, praying that an inquiry might be set on foot in regard to the condition of the asylums throughout the State. It was thought best for our purposes that the superintendents should be examined under oath; and if the testimony of these gentlemen, as given in the report of the senatorial committee, be carefully read, it will be perceived that some very damaging facts were obtained in this manner regarding the imperfections of the system. How *ex parte* was the report of the senate committee, how unjust, how full of glaring misstatements, many of which could be refuted from the appended testimony, will be set forth at length in the forthcoming reply of the Neurological Society; and I shall not pause to dwell upon it here further than to say that this reply constitutes an unpleasant but unavoidable episode—unpleasant, because of the strong and personal language employed; unavoidable, because the senatorial report was so directly slanderous and misleading that we should have been tame and sapless had we not defended ourselves in a manner as vigorous as that in which we were assailed

I have offered this short and running statement of facts in order that the profession might be better acquainted with the origin and objects of the movement than it is likely to be if it lends too willing an ear to the violent and summary denunciations that are being heaped daily upon the heads of our committee. The living, essential question, about which medical men should satisfy their minds is: Are our lunatic asylums in need of reform? All doubts as to whether Dr. Smith has interested motives in this matter, or whether Dr. Brown is feeding fat an ancient grudge, or whether Dr. Jones is seeking notoriety, are entirely foreign to the issue. Admit, for the sake of argument, that interested motives, ancient grudges, desire for notoriety, are at the bottom of the matter; still, the question remains unanswered: Are our lunatic asylums in need of reform? And if it should be made manifest that they sadly need renovation—why, then, interested motives, ancient grudges, desire for notoriety, have done a work that more elevated moral qualities might be proud of. Above all things, let the profession keep the query as to the necessity or non-necessity of asylum reform prominently before its eyes. If the asylums do not need reform, let us all go home and acknowledge that we have made a mistake. If the asylums do need reform, we have a right to demand the support of the profession in our efforts. We are waging war upon a powerful system, rooted firmly in the hearts, the prejudices, and the interests of a large body of able and influential men, and protected by the political influence of both parties in the commonwealth. Thus it is, therefore, to be expected that the defence and the counter-attack should be vindictive and noisy, and tend to obscure the main points. We ask the profession simply to be just in its judgment. If the present movement is needed, it is of too grave and momentous a nature to be slurred over by personalities. It must carry within its bosom a great truth, which in this land of ours of quick intelligence and rapid diffusion of information must eventually brush aside all flippant obstacles and triumph over them. I believe that it will. As a member of the committee of the Neurological Society, as one who has had a part in the movement, as one of the signers of the petition, I am proud of what I have done; for while I have contributed my small quota in aiding what must, if successful, be of incalculable benefit to insane multitudes throughout our land and abroad, I have done no man an injury.

In conclusion, Mr. Editor, I have a proposition to make, which I hope will meet with your approval. It is that you throw open your columns to a discussion of this question. Yours is the weekly medical journal of general medicine in the metropolis; it is evident that you are impartial in this matter; and as our sense of professional propriety restrains us from publishing our views in the newspapers, it would seem that yours is peculiarly the fitting organ for our publications. Should you see fit to assent to this, I shall be happy to open the discussion by a statement of facts, and this can then be followed by letters for and against. In this way the evils can be fully canvassed, as well as the remedies for them, and the resulting benefit will be that of a free and full debate, which shall command the attention of the profession.

LANDON CARTER GRAY, M.D.

BROOKLYN, Jan. 12, 1880.

THE ORIGIN OF THE CHORDA TYMPANI NERVE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I am able to add an important confirmatory observation to those published by Dr. Horatio Bigelow in the RECORD, favoring the view that the chorda tympani nerve is after all not a branch of the facial proper, but the continuation of the *nervus intermedius* of Wrisberg.

It is well known that the latter nerve is entirely distinct from the facial at the origin from the medulla oblongata. In numerous transverse microscopic sections of human and animal peduncular tracts, I have found that the fibres of the nervus intermedius have *no* connection with the facial nerve nuclei. Their central termination lies, in fact, in lower altitudes—that is, while the facial nuclei are situated within the lower pons margin, the nucleus of the nerve of Wrisberg lies strictly within the limits of the medulla oblongata in the level of the superior auditory nucleus.

The gray origin of the nerve of Wrisberg is diffuse, and, in the *strict* sense of the term, cannot be called a nucleus for that reason. On examining its relations more closely, we find that it *does not correspond to the*

ventro-lateral column of the medulla, but to an ideal continuation of the gelatinous column of the trigeminus region, in other words, it originates in the *ventro-gray* column of the medulla. While this discovery, whose details I shall publish in full before long, strictly confirms Dr Bigelow's view, that the nervus intermedius and chorda tympani together constitute an entirely distinct system, and have no other than an accidental anatomical relation to the facial (as it were), it throws no light on the much-disputed question as to the part played by the *nervus intermedius* and *chorda tympani* in the function of taste; it permits us to say only, that both the former and the latter with its intracranial part of the nerve of Wrisberg originate from the sensory column of the medulla and must be both sensory or trophic nerves.

Dr. Matthias David claims to have traced the nervus intermedius to a continuation of the glosso-pharyngeal nucleus. I am not able to confirm this observation; it seems very seductive and plausible on first sight, but in so many cases has this writer made hasty and inaccurate statements that it would be well to wait for confirmation of his view from other sources before accepting it.

Dr. Edgelow makes one statement to which I must take a profound exception; he attributes the sensory function of Wrisberg's nerve to a ganglion on the nerve. It is generally conceded that peripheral ganglia are obscure in their function, and that the function of a cerebro-spinal nerve is determined by its *central* connections.

Respectfully yours,

E. C. SEITZKA, M.D.

130 EAST FIFTIETH STREET.

GRATUITOUS SERVICES TO CLERGYMEN.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I wish to give you my method of practice in the families of clergymen, which I think is a good one in small towns, where only one or two clergymen and one or two doctors find a home. When my pastor asks me for his bill, I simply say that I will set his sermons against my prescriptions and call it even. I pay no pew-rent and he pays no pill-bill. Beyond ordinary practice—if I were to perform a severe surgical operation in his family, for example—I would charge him the regular fee. So, if he should officiate at my wedding or funeral let him receive the regular fee. I recommend this plan as a simple solution of the question of "Gratuitous Services to Clergymen."

Yours truly,

F. B., M.D.

PEACHAM, VT.

HIGH TEMPERATURE IN NERVOUS SHOCK.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: In answer to the inquiry of A. L. C., in your last issue, I would refer him to the report of a paper read before the Clinical Society of London, by J. W. Teale, on a case of excessive temperatures following a shock to the spine from a fall, and reported in the *London Lancet* of March 6, 1875. Seven different thermometers were tested in this case, and finally a special one made on account of the want of a sufficiently high register. This, however, was only marked to 122° F., but on testing it, it rose above even this, so that Mr. Teale supposes it reached on that occasion 125°. For a number of days the range fluctuated between 116° and 122°, and for seven weeks never fell below 108°.

In justice to myself, however, I should state that I never saw or knew of the lecture on the therapeutical action of cold until I read it in the RECORD of January 31st. This article is evidently an abstract, by some gentleman, of notes on a course of four lectures delivered during the winter term by me on this subject, and in the course of which to illustrate the statement that a high thermometric range owes all its significance to the particular morbid state present but of itself may be of slight importance, I referred to this case as reaching 123° and continuing for several weeks at figures which, in disease, would presage death in a few hours. In the abstract it appears as remaining at 123° for several weeks, which I did not say.

Yours,

W. H. THOMSON.

[The lecture came to us in the regular way, through a member of the staff, and the fact that the author did not see the proof was due to an oversight of the gentleman having the matter in charge. ED.]

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 18 to January 24, 1880.

TAYLOR, M. K., Capt. and Asst. Surgeon. The leave of absence granted him from Headquarters Dept. of Texas, is extended one month. S. O. 9, Mil. Div. of the Missouri, January 19, 1880.

WORTHINGTON, J. C., 1st Lieut. and Asst. Surgeon. Relieved from duty at Ft. Grant, A. T., and assigned to duty at Ft. McDowell, A. T. S. O. 4, Dept. of Arizona, January 6, 1880.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 24, 1880.

Week Ending	Typhus Fever	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Jan. 17, 1880...	0	5	45	5	226	35	0	0
Jan. 24, 1880...	0	5	80	4	337	41	0	0

DEATHS FROM CHLOROFORM.—A recent number of the *Lancet* alludes to another of those apparently increasing cases of death from chloroform in Europe, occurring upon the administration of this anæsthetic for comparatively trifling operations.

In the present instance, according to the report of the coroner's inquest detailed in the *Lewis Mercury* of November 21th, the anæsthetic was administered for the enucleation of a diseased eyeball. There were no unusual signs of danger, but the heart's action suddenly failed, and the man died in a few moments. The post-mortem revealed nothing to ac-

ount for the death; all the organs were found to be ealthy.

A number of cases have also been lately reported, n which death occurred within the first two minutes f administration, and which, as in this instance, either previous indications against the use of the nasthetic, premonitory indications of danger during s administration, nor explanatory post-mortem ap-earances, existed.

It is a matter of speculation to what limits the ate of deaths from chloroform may extend before ustifying an indictment for manslaughter. Certainly, o drug in the materia medica has killed so many eople—a mortality the more inexcusable, since in ther, which first established a practicable anæsthesia, he profession procures an innocuous anæsthetic. Death from chloroform, when it occurs, is unavoid-ble—from ether, avoidable; a vital difference, which eaves the conscientious surgeon but little choice.

Another death from chloroform occurred January 8th, in Somerville, N. J., in the office of Dr. H. F. Vandeveer. The patient was a boy aged five years, who was being operated upon for the removal of a piece of glass from the foot. During the operation he father, who was holding the boy, fainted, and both fell from the chair to the floor. The boy ex-pired almost immediately afterward. The anæsthet-e was administered with the usual precautions. Death was due to paralysis of the heart. The cor-oner's jury exonerated the operator.

Reception in Honor of Dr. J. Collins Warren, of Boston.—Mr. William H. S. Wood, senior partner of the firm of William Wood & Co., Medical Publishers, gave a reception January 22d, at his new residence in Sixty-third Street, in honor of Dr. J. Collins War-ren, of Boston. A large number of representative medical men of this city were present, and the occa-sion was in every respect an enjoyable one.

Anti-Vivisection Movement.—A petition is circu-lating in this city against the bill recently introduced to prevent vivisection. It is presented to medical men only, and they have, with but two or three ex-ceptions, all signed it. Prof. John C. Dalton has been most active in setting this movement on foot.

Body-Snatching at Richmond.—A number of cases of body-snatching, in or about Richmond, have oc-curred lately and have been the subject of much sen-sational talk and writing. Virginia has never provided by law dissecting material for its two colleges; hence the present trouble. According to the *Virginia Medi-cal Monthly*, there have been no cases in which the bodies of those who had friends were taken. The talk that has been occasioned was indiscreet and un-necessary.

Death of Surgeon-General J. Winthrop Taylor.—Dr. J. Winthrop Taylor, ex-Surgeon-General, U. S. N., died in Boston, January 9, 1880. He was born in this State, and entered the Navy as Assistant Surgeon March 7, 1838, being appointed from New Jersey. He was for five years with the West India Squadron, and then was on duty in home ports or the Home Squadron until the breaking out of the rebellion. He was appointed Surgeon May 1, 1852. With the exception of two years—1864–66—at Boston, most of his services during the civil war was in the Gulf. Since 1873 he has been attached to the Naval Ren-dezvous at Boston.

Rise in the Price of Quinine.—Owing probably to speculative operations, the price of quinine suddenly rose fifty cents about the middle of last month. This brought it up to $3.20 per ounce for American qui-nine. The foreign quinine is a little cheaper.

New York City's Defective Sewers.—Recent complaints have brought to light the great deficien-cies in the sewers of this city. There are 370 miles of sewers altogether. Of this, 205 miles are built on the old fashioned plan. They are laid without much regard to the natural watercourses, and, in part, are composed of clay-pipes, or are simply drains open at the bottom with stone sides uncemented. About one-third of the streets above Twenty-first Street are drained with clay-pipes. These are liable to be crushed in and thus stop the sewage flow. Such an accident recently occurred in Fifty-sixth Street. As a result, a large amount of sickness has occurred in that vicinity of late.

The Metric System and Congress.—The House Committee on Coinage, Weights, and Measures, Jan-uary 27th agreed to report favorably a bill authoriz-ing importers to use the metric system of weights and measures. They also agreed to report favorably several bills providing for the adoption of the new metric gold and silver United States standard coins as formulated by Dr. W. W. Hubbell for international purposes.

St. Michael's Hospital, Newark, N. J., and the Resignation of its Medical Staff.—We are sorry to hear that there has been a serious disagreement be-tween the managers and the medical staff of the St. Michael's Hospital, at Newark, N. J. From what can be learned, it appears that the recommendations of the medical board concerning the filling of a vacancy in its membership were not only ignored by the trustees, but were actively opposed by the managers to the extent of appointing a gentleman whom the staff declined to nominate. The same principle of oppo-sition on the part of the trustees to the desire of the staff was manifested in declaring its election of a medi-cal director null and void, and in the appointment by the trustees of another gentleman to the position. While the former action of the managerial board might be mildly considered as discourteous, the lat-ter action was insulting, and the medical board very properly resigned in a body. If there is one privi-lege which should be enjoyed by the medical board of any hospital it is the one of choosing its associates. Its recommendations regarding the qualifications of any candidate should command due respect from the appointing power. At least the board of trustees should not presume to elect any one who has failed to obtain the recommendation of the medical board. The trustees, doubtless, have the power to do this, but it is not always in the true interests of the hos-pital to exercise such power.

Another Audiphone.—We have chronicled the failure, or partial failure, of the Rhodes' audiphone. Another instrument for assisting hearing, the Gray-don audiphone, has been constructed by an English-man, and it is claimed to have special advantages. It is in principle something like that of Mr. Rhodes; that is, it conducts the sound to the auditory nerve through the bones of the face. It utilizes the micro-phone, however, thereby intensifying sound. Let one take a common toy-telephone and hold the string, which is fastened to the centre of the dia-phragm, in the teeth. Then let another person talk into the telephone, and the essential principle on which the Graydon telephone is constructed will be understood.

NEW YORK CHARITIES.—About $5,000,000 are expended in charity and pauper relief of various kinds in New York city each year. Nearly one-half of this is raised by taxation, the rest being donated by charitable persons.

DEATHS FROM INHALATION OF ETHER.—Two cases of death from the inhalation of ether are reported in the *Boston Medical and Surgical Journal*. One was that of a man, in Providence, R. I., aged 54. He had been knocked down by a horse, and sustained injuries to the hip. Ether was given to facilitate the diagnosis. After taking it for about fifteen minutes, without any warning he ceased to breathe. The autopsy showed effusion of serum beneath the arachnoid, valvular lesions of the heart, and cystic degeneration of the kidneys.

The *Cornish Journal* reports the death of a lady from ether, administered by a physician for the purpose of extracting a tooth. Scarcely an ounce had been used. The coroner's verdict was death from paralysis of the heart, due to inhalation of ether.

ADULTERATIONS OF COD-LIVER OIL.—A Dutch paper is the authority for the statement that the cod-liver oil obtained from the torsk, which comes principally from Bergen, in Norway, is very often adulterated before exportation with the oil obtained from the livers of the Seymonus borealis (called in Norway "haakjärring"). This fish, which belongs to the shark species, abounds in the Polar Sea, in the northern parts of the North Sea, and in almost all the larger fiords on the west coast of Norway; it is caught at depths of one hundred to two hundred fathoms, and the larger specimens furnish from one and a half to two casks of liver. The oil obtained from it is beautifully clear, contains but little stearine, and is cheaper than the torsk oil, but it has a very unpleasant odor, and its taste is exceedingly disagreeable. Moreover, the fluid fat of the sea-mammalia (seals, etc.) is also sold as pure cod-liver oil; this oil contains but little fatty acid, and it is hard to digest. The adulteration with this last oil is said to be practised not in Bergen, but after exportation.—*Allg. med. Cent.-Zeit.*

UNIVERSITY OF EDINBURGH.—The medical school at this university has been greatly increasing in prosperity and in the number of its students, within the past five years. In reply to an insinuation that this was due in part to the laxity of its examinations, Dr. William Rutherford writes to the *British Medical Journal*, that in 1878, of 262 candidates at the first examination, 25.9 per cent. were rejected; of 165 at the second examination, 35.1 per cent. were rejected. At the final examination 144 appeared, and 18 per cent. were rejected.

Dr. Rutherford considers this a proof of the severity of the examinations.

There are some American colleges who reject a larger per cent. at the final examinations.

PRISON REFORM.—The doctor-governor of Kentucky has been doing good work in calling attention to the evils connected with Kentucky prisons. It appears that there are 953 prisoners and 780 cells, so that in many cases two have to sleep in a cell. This gives about 80 cubic feet of air to a person. This has seriously affected the health and working capacity of the men. *Louisville Med. News.*

HOSPITAL SATURDAY AND HOSPITAL SUNDAY.—The hospital Sunday collection in London recently amounted to over $130,000. One per cent. of this amount is devoted to the purchase of surgical instruments for poor patients. The plan of setting apart a portion for this object is highly commended by the *British Medical Journal*. Hospital Saturday in London meets with small favor, and but little money is raised on that day.

EXCISION OF THE HIP-JOINT.—At two successive meetings of the London Clinical Society, the operation of excision of the hip-joint was exclusively discussed. Mr. Croft championed it and showed a number of successful cases of his own. He insisted on the comparatively early performance of the operation and on the preservation of the great trochanter. A committee was appointed to investigate and report on the whole subject.

HUDSON RIVER STATE HOSPITAL FOR THE INSANE.—Dr. Allan McLane Hamilton, of this city, has been appointed one of the consulting board of this asylum.

CONTAGIOUS DISEASES IN CHARITABLE INSTITUTIONS.—There have been a number of epidemics of more or less extent in the charitable institutions for the care of children in this city. Over a month ago many cases of measles were reported from the Baby Shelter connected with the Church of the Holy Communion; since then that disease has appeared among the children in the Home for the Friendless, on East Thirtieth street. We learn that whooping-cough has prevailed extensively in the Mount Vernon branch of the Lying-in Asylum. The recent disclosures concerning the condition of the children in the Shepherd's Fold show that some of our infant and juvenile charities nurse disease as well as children.

CONTAGIOUS DISEASES IN NEW YORK.—According to the report of Sanitary Superintendent Dr. W. De F. Day, the number of cases of contagious diseases in this city in 1879 was as follows: typhus fever, 8; small-pox, 65; cerebro-spinal meningitis, 107; typhoid fever, 233; diphtheria, 1,781; measles, 2,424; scarlatina, 5,447.

The number of cases of measles, which was very great in December, amounting to 971, decreased somewhat in January of this year.

BOOKS RECEIVED.

MINOR GYNÆCOLOGICAL OPERATIONS AND APPLIANCES. By J. HALLIDAY CROOM, M.B., etc. Edinburgh: E. & S. Livingston. 1879.

OUTLINES OF PRACTICE OF MEDICINE. By SAMUEL FENWICK. Philadelphia: Lindsay & Blakiston. 1880.

STUDENT'S GUIDE TO DISEASES OF THE EYE. By EDWARD NETTLESHIP, F.R.C.S., London. Philadelphia: H. C. Lea. 1880.

BERICHT ÜBER DIE ZWÖLFTE VERSAMMLUNG DER OPHTHALMOLOGISCHEN GESELLSCHAFT, Heidelberg, 1879. Redigirt durch F. C. Donders, W. Hess, Fr. Horner, u. W. Zehender. Stuttgart: Ferdinand Enke, 1879.

REGIONAL TEMPERATURE OF HEAD. By J. S. LOMBARD, M.D. London: H. K. Lewis. 1879.

CLINICAL LECTURES ON DISEASES OF WOMEN. By J. MATTHEWS DUNCAN, M.D., Edinburgh. Philadelphia: H. C. Lea. 1880.

SYSTEM OF MEDICINE. Edited by J. RUSSELL REYNOLDS, M.D., F.R.S., London. With numerous additions and illustrations by Henry Hartshorne, A.M., M.D. In three vols. Vol. I. Philadelphia: H. C. Lea. 1879.

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Vol. XXX. 1879.

Original Lectures.

CLINICAL LECTURE ON GENERAL PARESIS:

BEING THE FOURTH OF A COURSE OF FOUR CLINICAL LECTURES UPON THE DIAGNOSIS OF INSANITY.

DELIVERED UNDER THE AUSPICES OF THE COMMISSIONERS OF CHARITIES AND CORRECTION, AT THE NEW YORK CITY ASYLUM FOR THE INSANE,

BY A. E. MACDONALD, M.D.,

MEDICAL SUPERINTENDENT, NEW YORK.

GENTLEMEN:—We are to consider to-day the fourth and last of the forms of insanity embraced in the classification which we agreed at our first meeting to accept, and it is not alone the last, but, to my thinking, the most important of those forms, and I have more than one reason for thinking so. In the first place, it is more recent, at least in its recognition, if not, indeed, in its origin, than the forms which we have discussed. Our knowledge of its course and causes and symptoms is much more limited and much less positive, and there is the further reason, which may increase the importance of the present opportunity of study to many of you, that, though prevalent enough in this neighborhood, it is comparatively unknown in those localities to which you may propose, after the completion of your studies, to remove.

I speak of paresis as a comparatively newly discovered form of insanity, and you will remember that we found its name to be a comparatively recent addition to the three forms of insanity of which Pinel's "natural system" of classification was originally composed. Now that the disease is recognized, and that opportunities for its study are ample, we see that its symptoms were observed and recorded long since; but so rarely were they observed that they were not held to constitute an individual form, but were simply regarded as accidental complications of one or other, indifferently, of the forms already recognized. Indeed, the date of its promotion abroad to the dignity of a distinct disease is within the present century, while in this country but little over thirty years have elapsed since its first appearance or identification; and although, since that time, the number of cases presenting its characteristics has in this neighborhood greatly increased, its extension toward the interior has been gradual, and there are still many localities, especially in the west and south, where it has not yet appeared. That it will do so the history of the disease and its geographical progress can leave no doubt, and hence my belief that it is especially important that you should study it here where it is common, in order that you may recognize it if you go where it is now unknown, but will surely follow.

I speak to you of the disease by the name commonly applied to it in this country—"General Paresis." English writers, as a rule, use the longer term —"General Paralysis of the Insane"—while individual authors have each their own designation, "Paralytic Dementia," "General Incomplete Paralysis," "Progressive Paralysis," among the number.

The use of the word "progressive" in one of these designations is a happy one, for progression is a principal characteristic of the disease, exaltation being another. In effect, general paresis may be defined to be a form of insanity in which there is an association of mental and physical evidences of which progression and exaltation are the leading characteristics. As the patients in the different stages of the disease are presented to you, you will observe how constant and uniform these characteristics are. You will see, first, that they are—at least those in whom the disease is of relatively recent development—men of apparently strong frame and vigorous health. Paresis does not find its victims, as do commonly the other forms of insanity, among those who are weakened by constitutional defect or by disease, but selects them from among the active and vigorous. Nor does it go to the extremes of age, but to the prime of manhood.

I will anticipate the appearance of the patients by giving you a brief summary of the leading symptoms of the disease and of its course, and as the patients are brought before you, you will recognize these symptoms and others which are less uniform in their presence.

As a rule, then, paresis makes its appearance in a man of middle age who has apparently been possessed of a strong constitution and of robust health. It is quite possible—probable, indeed—that he has been somewhat inclined to dissipation or excess in various ways; but it has not gone to the point of perceptibly affecting his health, or appearance, or business capacity. The change which comes over him is rather a more sudden one than in most forms of insanity excepting acute mania, and it is somewhat of a question whether the mental or the physical symptoms have precedence. Generally, in the statements of friends, the first place is assigned to the former, but they are plainer and more likely to attract the attention of the laity; and it is probable that if all cases could be carefully observed and the two sets of symptoms appreciated, they would be found to appear and advance coincidently. As regards the mental evidences, as in the approach of other forms of insanity, a period of irritability and depression may be expected; but it may be but slight and transient, and attract no attention. Then the element of exaltation asserts itself; the patient is lively and excited; he feels well in body, happy in spirits, hopeful and confident in business. He is disposed to enjoy life, to eat, drink, and be merry, and to make his companions and acquaintances share in his enjoyments. He becomes speculative and reckless in his transactions, extravagant and wasteful in his expenditures and his bounties; and before his condition is fully recognized and his property protected, he is apt to hopelessly embarrass his affairs. Increase in these tendencies, loudness in speech and manner, eccentric dress, indecency of language and demeanor, and possibly acts of violence, pave the way for positive delusions, and, as I have said, the main feature of these is their exaltation or exaggeration. In whatever field the patient's fancies may wander, they carry him far above his fellows. He is the richest, or the most powerful, or the most learned; or if, as sometimes happens, a melancholy tinge is imparted to his thoughts, he is the most abused and the most wretched.

All this time the physical symptoms have been appearing and progressing, depending upon increasing loss of power of co-ordination in the voluntary muscles. The muscles of the tongue and lips, as those most delicate in their functions, are the first to suffer or to show it, and there are, as a consequence, alterations of speech. At first it is but a slight hesitancy or catching, but it becomes thicker and more drawling, and the enunciation is indistinct and halting,

despite the patient's manifest efforts to speak with distinctness and deliberation. At the same time the muscles of the lips are tremulous, and the patient has difficulty in protruding the tongue, and while it is out it quivers and jerks, and may be suddenly withdrawn without deviation. There is evident failure, too, in the co-ordinating power of the muscles of the extremities; but these, as well as characteristic alterations in the conditions of the pupil, can be better shown to you from the patients themselves.

From this beginning the patient goes on surely, but more or less rapidly, through increasing exaggeration of delusions mentally and increasing paralysis physically, to the end. I may say now, before the patients come, that they may not hear me, that this end is death. The list of therapeutic agents has been ransacked, the pathological appearances studied, but as yet to no useful purpose. It is true that recoveries have been recorded, but they are at best insignificant in number, as well as doubtful in authenticity. Nor is the inevitable end long of being reached when once the disease is fully established. Three years is a long limit for most cases, though some have passed it. The longest period elapsing between development and death, in a case coming under my own care, has been short of six years. In these cases death occurs from the disease uncomplicated, and may either result from the gradual increase of the paralysis and its extension to the muscles concerned in deglutition and respiration, or from the convulsive seizures which come on in its course. In other instances, pulmonary complications arise and end the patient's life.

Phthisis is a not uncommon complication of general paresis, as indeed of other forms of insanity, and when it is present it seems to have an effect in shaping and coloring the delusions. It is in such cases that you will find the tendency toward depression that I have spoken of as occasionally existing. It stops short of the depression of true melancholia, however, and only modifies without supplanting the delusions of greatness or wealth. The patient may tell you that, through the machinations of his enemies, he has lost his kingdom or his fortune; but he will tell you, too, that his loss is but a temporary one, and that he will soon be more powerful or wealthier than before, and as, at any time, the ravages of the pulmonary disease may be temporarily arrested, the original delusions will return.

Case I.—The patient whom I first present to you will show excellently the physical marks of the disease. In his case the progress of the malady has been rapid, but seven months having elapsed since its appearance. He is thirty-two years of age, and has evidently been a man of fine physique. You do not get many mental symptoms from him, for he has already passed from the lively and talkative into the dull and stupid stage; and, besides, his speech is so stammering and incoherent that his answers to our questions are scarcely intelligible. You see very plainly here the tremulousness of the lips and tongue of which I spoke. He can only protrude the latter with the greatest difficulty, and has little or no control over it. His hands and limbs are equally independent of his will; the former tremble and jerk about, and his gait is so unsteady and tottering that he seems in constant danger of falling.

You notice that there is a decided inequality of his pupils, the left being much dilated and failing to respond to light, while the right is about normal in size, and does so respond. This is a lesion which is almost characteristic of general paresis, and which, when associated with the mental evidences of which we have spoken, may be taken as settling the question of diagnosis. It is true that unequal pupils may be found in other cases, and even in sane people; but in the latter a history of mechanical injury, or of strain by excessive use of one eye, as in the case of engravers, may generally be found to account for it. In the case of paresis, at the inception of the disease, there is usually intense and equal contraction of the pupils—"pin hole" pupils, as we call them—but subsequently they dilate, and dilate unequally. They are apt to lose their shape, too, and become irregular, from lapping over of the edge of the iris. In some cases the right pupil is the more dilated, in others the left, and a curious fact in this connection, first recorded by Dr. Austin, in England, and verified by observations in this asylum, deserves to be mentioned. This is that where there is any tendency toward melancholy or depression, the left pupil will be found to be the larger, while where the opposite tendency exists, as it does in the great majority of cases, the right pupil will be the more dilated. I do not venture to account for this relation, but it certainly seems to exist, as you will see, I think, from the patients before you.

I may speak to you now, as well as at another time, of the probable causes of paresis. Of the general type of persons from which its victims are selected we have already spoken, and it will prepare you for what follows. The assigned cause in the case of the patient before you is excessive sexual indulgence, and in my experience it is the assigned or assignable cause in the great majority of cases. There is the source of error to be feared in this case which affects all attempts to ascribe causes to attacks of insanity of any kind—the doubt as to the real relations of cause and effect. Hence, if we get concerning a paretic the history of excessive venery, we may, especially if the history is only of recent indulgence, suspect that the excess is due to the disease and not the disease to the excess, and we may admit at once that we do have cases of paresis where there is not only no reason to suspect over-indulgence, but where the negative evidence is so conclusive that we have to seek for other causes. But in the great majority of cases, at least of those coming to this asylum, there is a straight history of inordinate venery, and strong corroborative evidences and appearances. With this we get too, in most cases, a history of hereditary tendency to insanity, and of intemperance in the use of stimulants; but this is true, too, of the admissions generally, and not alone of those suffering from paresis. Other assigned causes are sunstroke, syphilis, and injuries to the head; but, as compared with the cause I have cited, they are infrequently advanced, and this leads me to say a word regarding the question of sex in the matter of liability to this special form of insanity. It is an undoubted fact that excessive sexual indulgence is less disastrous in its effect upon the female than upon the male, and, therefore, if it is really the principal factor in the production of paresis, we should find that disease much more prevalent among men than women, and this is exactly what we do find. In this asylum, which, as you know, receives males exclusively, there are now probably a hundred cases of paresis. In the corresponding asylum of the department devoted to the care of females, although the entire number of patients is much greater than here, there are, according to the report of the Superintendent, not more than three or four; and, by way of further confirming the theory advanced, it is recorded that, where women suffer from

paresis, they are generally those who have led dissolute lives as professional prostitutes.

It is noticeable that, when paresis first makes its appearance in a given locality, its victims are exclusively males. As time passes on, a few cases are found among females, and thereafter their proportion increases as the disease spreads.

Case II.—This is also a comparatively recent case of paresis, the invasion of the disease dating back only five months. He is a younger man than the other, about twenty-seven, and you see that the physical disturbances are by no means so far advanced. In fact, at first glance, as he sits there, he appears a well nourished, healthy young man. But as he rises and comes toward us we see that his gait is perceptibly affected, that his hand is tremulous, and that his pupils are unequal, the right being this time the larger. When he speaks, the difficulty of articulation is marked; but we can understand him distinctly enough, and learn the drift of his delusions. They are, as is commonly the case, at least in the commencement of the disease, connected with his former pursuits in life; they are limited in number, and are by no means as exaggerated as those shown by some, or as they are themselves likely to become as the disease advances. He was, prior to his admission, a professional billiard-player, a champion in one branch of the game, and but recently engaged in a tournament in this city. Accordingly he accounts for his residence here by telling us that this is a large hotel, that he has charge of the billiard-room, with a fabulous number of tables, from which he derives a large income, and that the only feature of the establishment to which he objects is the fact that the door of the bar-room is always kept locked, and that he cannot get access to it. As it happens, there is another patient in his ward, a paretic also, who was likewise a billiard champion, or thinks he was, and these two worthies spend much of their time in discussing the preliminaries of a grand championship match which is to settle the question of supremacy between them. It is needless to say that the stakes are something enormous, and that each is sublimely confident of his ability to win them.

Now here are two patients, the delusions of each of whom depend largely upon belief in the entire truth of the delusions held and enunciated by the other. This is a peculiarity which you often find among patients with paresis, and do not find among patients with other forms of insanity. You will remember that at our former meetings, and especially when we had the maniacal patients before us, there were often implied, and sometimes audible, expressions of dissent on the part of other patients from the views of the particular patient who happened to be addressing you, and these views were often ridiculed and laughed at. As a rule, an insane man appreciates the falsity of the beliefs of other insane men around him, while cherishing beliefs equally false himself. And this is a fortunate thing for the officers of asylums, for it prevents the association of patients in schemes for attack or escape. Should one patient invite the co-operation of others in a plan to escape, the chances are that they would inform upon him, believing him quite unfit to be at large, while each considering for himself that his own detention is quite unwarrantable; and where a patient attacks an officer, it is quite common for other patients to interfere for his protection. There is, then, usually but little confidence between the insane, and but little acceptance of the delusive ideas of one by the other. But the paretics are in some measure an exception to this rule. It is by no means uncommon for one of them to uphold the correctness of the assertion of his fellow-patient almost as loudly as his own, unless, indeed, those views clash with his, in which case, of course, the other man is all wrong, just as in the case of sane people.

This patient, and the other of whom I have spoken, hold each the delusion that he is going to win money from the other, because he believes the delusion of the other that he has got money to lose. Similarly, a patient who was formerly a professional gambler plays cards with his comrades industriously, cheats incorrigibly, and flatters himself that he is rapidly absorbing the millions they claim to possess; and in more legitimate business there are transactions made and copartnerships formed that are quite dazzling in their results, and always equally productive to both parties.

Case III.—This is an exceptional patient in one or two respects. In the first place, he is much beyond the usual age of paretics, being aged 66; and in the second place, the disease has lasted an unusually long time to have reached only its present stage, for he has been an inmate here for five years. You see that he is a lively little old gentleman, fat and good-natured, very talkative, and with a disposition to assume the direction of affairs and generally assert himself. There is surprisingly little physical disturbance for one in whom the disease has endured so long, and whom it has at times affected so hardly—for he has more than once been at the point of death from the epileptiform attacks which are incident to paresis. The affection of the speech and gait, though perceptible, are not marked, and the difference in his pupils is the only decided physical symptom present. The right pupil is again in his case the more dilated, and he feels that there is some trouble with his vision, and is constantly asking for spectacles, which, of course, fail to correct it. But, if the physical symptoms are absent—or in abeyance, for he has shown them decidedly enough at other times—there is no lack of the mental ones. His delusions cover every conceivable subject, and reach quite inconceivable heights. There is no difficulty in eliciting them either, for he is very garrulous, and always glad to have an opportunity for speech-making. He has been brought before classes so often now that he is quite prepared for it. Often, as I pass through his ward, he asks when he is to have an opportunity of delivering himself; and he is constantly preparing discourses upon the most diverse and abstract topics. In all the insane, the delusions, as we have seen, relate to themselves, and first to the condition of their own bodies and minds. You will remember this in the maniacal and melancholic classes, and you will discover it in this patient and in his class. He tells you that he is the strongest man in the world, that he has defeated all the noted pugilists, none of whom could strike him a blow; and he offers you an opportunity, which we will waive, of seeing how easily he can defeat myself. His health, he tells us, is "first-rate," and it is a singular thing how commonly paretics will answer the same inquiry with the same expression. Sankey, an English alienist, first called attention to this curious little point; I have often, in trying it, got the answer "first-rate" from eight or nine out of ten patients addressed, and I think you will be able to verify the result if you try the experiment for yourselves when we come to pass through the wards. This feeling of well-being and health marks the paretic to the end, and his contentment and happi-

ness render his disease the least trying, although the most fatal of the forms of insanity. Up to the last moment, when the patient cannot rise in bed or move a limb, or swallow, he will tell you that he is first rate, that his remaining in bed is only a matter of choice, and that he could rise and take part in the most active pursuits, if he so willed it.

In the patient before you the delusions by no means limit themselves to his strength and prowess. He is of great beauty and strength, to be sure, and has lived for millions of years, and made millions of money, part of which is invested in the building in which we are now visiting him. But it is rather upon his intellectual and artistic abilities and achievements that he prides himself. Apart from painting the works that have been erroneously ascribed to Raphael, and with the exception of the Bible, which he wrote to oblige his friend Martin Luther, the most satisfactory outcome of his genius has been a series of plays which he published under the *nom de plume* of "Shakespeare." He tells you this with all earnestness and gravity, and proceeds to quote from his works, commencing rightly enough, but soon wandering off into disconnected nonsense. It does not do to accuse him of this, however for he demands, with great promptness and some asperity, whether, having written the work in the first place, he is not privileged to alter it as he may see fit? He is a linguist too, as well as a litterateur, and boasts a thorough acquaintance with all the known, and several of the unknown tongues. To Germans or Poles among the patients, he will occasionally address himself, using the most absurd gibberish, and complacently attributing their inability to understand him to their ignorance of their own language. He has matrimonial aspirations too: offers himself and tempting settlements to any lady who visits the ward, and justifies himself to us by asserting that his first wife—Queen Victoria—is undoubtedly dead, she having been stolen from him by the Pope some centuries since. For the rest, he is now the contented, self-satisfied man that you see, though at one time he was noisy and destructive and filthy. He imagines that he leaves the asylum whenever he wants to, and gives circumstantial accounts of his excursions and adventures. His imagination transforms the asylum dinner into one of many courses and ample accompaniments, and there is nothing to mar his happiness. He has the usual history of excessive venery, as, indeed, had the patient who preceded him.

Case IV.—This is the last patient that I shall introduce to you here, for I think that it will be more to your profit to spend the time remaining in the wards, in closer examination of individual cases. I present him only that I may have a text for briefly calling your attention to a couple of points, in relation to the disease, which the other patients did not specially call out. In the first place, this man comes to us, not simply as a patient committed for treatment and care, but as a prisoner under indictment. The crime charged against him is forgery, and it was not until his trial was in progress that suspicion of his insanity was suggested, and he was sent here for examination and report. He is a paretic, evidently, and his forgery, which was of a note or check, was, no doubt, committed under the influence of delusions as to his wealth, which he now manifests plainly enough. Many of our paretic patients come to us after arrest and appearance before the courts, and some after sentence even. The evidences of paresis, as you have seen, are not greatly unlike those of drunkenness, and they sometimes lead to mistaken diagnosis upon the part of the finest police force, and even to misdirected therapeusis in the matter of clubs.

Where graver crimes have been alleged against them, they have usually been those of arson or of false pretences. The paretic is very apt to set fire to his residence with the view of replacing it by one better suited to his newly acquired wealth and position; or he may obtain goods upon false representations as to his solvency and ability to pay for them.

You will observe that this patient does not give a very definite summary of his wealth; he indicates its extent rather by comparisons than by dollars and cents. This use of the comparative is a common thing among paretics when they are speaking of their powers, or attainments, or possessions. They are richer than Rothschild, or "bigger men than old Grant," and they are very apt to spell it with one "g," too, for the evidences of their disease find their way into their letters very speedily. Apart from the alterations in the handwriting consequent upon the loss of co-ordinating power, there are lapses in spelling and grammatical construction, even on the part of those who were before the most accurate. This, of course, comes from the lapse of memory, upon which the delusions also largely depend.

Original Communications.

BORACIC ACID—A NEW REMEDY IN EYE DISEASES.

By SAMUEL THEOBALD, M.D.,

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It is with much pleasure I hasten to bring to the notice of the medical profession, and more especially to the attention of those engaged in ophthalmic practice, the astonishingly favorable results which I have recently obtained in the treatment of certain affections of the eyes, from the use of boracic acid, an agent which, so far as I am aware, has not been heretofore employed in ophthalmic diseases.

Boracic acid, which, until Lister brought it into notice as an antiseptic, was little used except in the manufacture of biborate of soda, is a mild astringent. A solution containing four grains of the acid to an ounce of water—which faintly reddens litmus-paper—when shaken in a test-tube with an equal quantity of the white of an egg, produces but a slight coagulation of the albumen; and even a saturated solution* acts much less energetically in this respect than does a one-grain solution of sulphate of zinc. Its antiseptic properties, according to Lister, are not so great as those of carbolic acid; nevertheless he recommends it in certain cases, because of its being less stimulating to the tissues.

In an article upon the "Antiseptic Treatment of Suppuration of the Middle Ear," published in the *Archiv fur Ohrenheilkunde*, Vol. XV., Part I., Bezold described the excellent results which he had obtained in this affection from finely powdered boracic acid, applied by insufflation to the external auditory meatus. An abstract of this paper, which appeared in the October number of the *American Journal of Otol-*

* At 72° F. an ounce of distilled water will dissolve twenty grains of the acid; in hot water it is more freely soluble.

ogy, came to my notice some weeks since, and induced me to experiment with the new remedy. The results which I obtained in a number of cases of otorrhœa were not less favorable than those which Bezold had reported; they led me, however, in one respect to a different conclusion. He placed but a poor estimate upon the efficacy of *solutions* of the acid, deeming it as essential that it should be used in *substance;* whereas, I obtained, in some cases at least, such very excellent results from solutions, varying in strength from five to ten grains to an ounce, as to induce me to place a higher estimate upon their value.

The prompt manner in which purulent discharges from the mucous membrane of the tympanal cavity were checked by these solutions, suggested the idea, that where similar discharges from the conjunctiva existed, equally good results might be obtained from their use as a collyrium. The first point to be ascertained, whether the eye would be unduly irritated by the application of the acid, was soon settled, and in a most satisfactory manner—*a four-grain solution when dropped into the eye was found to cause absolutely no irritation.* Even where a half-grain solution of sulphate of zinc gave rise to considerable smarting, the boracic acid induced not the slightest discomfort. A case of purulent ophthalmia, under my care at the Baltimore Charity Eye and Ear Dispensary, afforded an excellent opportunity for further experimentation. When this case came under observation—the disease having been allowed for three weeks to run its course unchecked—a threatening corneal ulcer was present in each eye, while the purulent discharge was still as great as ever. Fearing, because of the condition of the cornea, to use a stronger astringent solution, I had at first given a collyrium, to be applied four times a day, containing half a grain of nitrate of silver and one grain of atropia to an ounce of distilled water, which was well borne, but produced only slight diminution in the discharge. The proportion of nitrate of silver, therefore, was doubled; but in this strength, though it further checked the discharge, it caused so much irritation that I could use it but twice a day, alternating it with a one-grain solution of atropia.

Under this treatment the disease was slowly subsiding, the ulcers becoming less threatening, and the discharge less profuse; nevertheless at each visit I found it necessary to remove a great quantity of purulent secretion from the eyes, in order to obtain a view of the cornea, and the palpebral conjunctiva was still swollen and villous.

It was at this stage, after three weeks' use of the nitrate of silver, that the boracic acid was employed. Giving a solution containing four grains of the acid and one of atropia to an ounce of distilled water, I directed it to be dropped into the left eye (in which the ulcer was more completely healed, though the discharge was not less profuse, than in the other) three times a day, in place of the nitrate of silver and atropia, which, however, were to be used as before to the right eye. This was on Monday. The case was next seen on Wednesday, when, in response to my question as to how the eyes were getting on, the reply was: "One eye is a great deal better." And so it certainly was. To my great satisfaction the left eye was found to be entirely free from discharge; not a particle of pus, or even of mucus, could be discovered within the palpebral aperture, while the corneal ulcer was healing nicely, and the conjunctival swelling had greatly diminished. The other eye had changed but little, and still contained as much pus as before. The same treatment was now ordered for it. During the next two days, however, the patient—a wretched little specimen of illegitimacy, but half-nourished because of the illness of its mother—took a bad cold, which came near putting an end to its existence. The consequence was, that on the following Friday, although there was a decided diminution in the discharge from the right eye, the left was not so well, and contained a small amount of muco-purulent secretion. Nevertheless, in spite of this drawback, and an attack of thrush which next supervened as a consequence of improper feeding, the inflammation of the eyes rapidly declined under the influence of the acid, which caused not the slightest irritation; so that in three or four days the swelling of the lids and conjunctiva had entirely disappeared. At the expiration of a week, as a slight blennorrhœa still persisted, and the ulcers had so far healed as to give rise to no further anxiety, I ventured to increase the proportion of boracic acid in the collyrium, which was still being used three times a day, to eight grains to an ounce. This caused no irritation, but as a slight mucous secretion persisted after several days, it occurred to me to discontinue the atropia, which up to this time had been combined with the acid. The change was immediately beneficial, and in twenty-four hours the secretion had nearly ceased. The case is still under observation, the drops as yet being used; but the subject of it, barring his eyes, is in so wretched a condition that I fear he will not live to enjoy the excellent vision which has been saved to him. Should, however, his fate be an early demise, he will, hereafter, doubtless derive additional enjoyment from a conciousness that his mundane existence, though brief, was not altogether in vain.

The next case in which I tried it was that of a boy, thirteen years old, the subject of inherited syphilis, who, while under treatment for an obstinate and severe sclero-keratitis of specific character, was attacked with a catarrhal conjunctivitis. After having satisfied myself that this was not produced by the atropia which was being used, I had tried in succession mild solutions of sulphate of zinc, alum, and nitrate of silver, but each with no appreciable benefit. The conjunctival inflammation seemed to be rendered peculiarly obstinate because of its association with the more serious corneal and sclerotic affection, so that, in spite of the various astringents which were employed, the catarrhal condition persisted, and I invariably found upon eversion of the lower lid an accumulation of mucus in the retro-tarsal fold.

After this treatment had been persevered in without effect for six weeks, a two-grain solution of boracic acid was given, to be dropped into the eyes three times a day. It caused no irritation whatever, and when, after two days' use of it, the eyes were examined, the catarrhal inflammation had disappeared, and I sought in vain for the usual accumulation of mucus. Although it is now being used but twice a day (the case being still under observation), there has been no return of the conjunctivitis; but, on the contrary, so rapid and decided an improvement in the sclero-corneal inflammation, which before had changed but little from week to week, as to convince me that upon this also it has exerted a decidedly beneficial influence.

After this I began with more confidence to make use of the new remedy. Even a saturated solution, when dropped into the eye, I found, although it gave rise to a constringent sensation analogous to that which alum produces in the mouth when tasted, caused only a very slight momentary smarting, accompanied by a trifling injection of the conjunctival vessels, which

disappeared in two or three minutes. The two- and four-grain solutions had only occasioned no irritation, but when an irritant is previously existed, produced a decidedly grateful sensation, which was described as soothing and cooling.

Among other cases in which I have since used it, the following may be briefly mentioned as illustrating its action, and as indicating the different conditions to which it seems applicable:

A patient, one of whose eyes I had enucleated four weeks previously, was much annoyed by an excessive secretion of mucus from the conjunctival sac as soon as he began to wear an artificial eye, and this in spite of his having used for some time before a four-grain solution of alum. A solution of boracic acid of the same strength was ordered to be instilled two or three times a day. He used it only twice a day, but in twenty-four hours the discharge was greatly diminished, and in two days was so far checked as to give him no further inconvenience.

In two cases of myopia, complicated by astigmatism, in which, in spite of the use of correcting glasses, asthenopia persisted, accompanied occasionally by conjunctival hyperæmia, the acid is now being used with decided benefit: in one a four-grain, in the other a two-grain, solution, in order to compare their action. In each a one-grain solution of sulphate of zinc had previously been tried, and abandoned because of the irritation which it produced; while in one alum, acetate of zinc, biborate of soda, and acetate of lead, had likewise been used without benefit. The case in which the four-grain solution is being used is that of a young lady, seventeen years of age, who, as she is completing her last year at school, and is a hard student, has exacted of her eyes during the past three months an undue amount of day and night work, and, as a consequence, has suffered much with asthenopia attended by congestion of the lids and conjunctiva. Since using the acid, her eyes have looked and felt much better, and she expresses herself as greatly pleased with its action.

An acute conjunctivitis of catarrhal type, attended by an unusual amount of irritation, in a lady about forty years of age, in which a one-grain solution of sulphate of zinc had done more harm than good, yielded at once to a two-grain solution of boracic acid, each application of which lessened the irritability of the eyes, instead of increasing it, as the zinc had done. In a number of other cases of acute catarrhal conjunctivitis, I have obtained from it equally good results, while in a chronic conjunctivitis, associated with nasal catarrh, it is being used with decided benefit.

In a case of kerato-conjunctivitis of scrofulous character in a little girl, attended by great photophobia and lachrymation, which did not yield to atropia and yellow oxide of mercury, I ventured to apply a two-grain solution of the acid, and finding it produced no smarting or irritation, I added one grain of atropia to it, and directed it to be used three times a day. It was well received, and decidedly lessened the conjunctival inflammation; but, on the fourth day, as the photophobia seemed rather greater, I gave in its stead a four-grain solution of atropia. After two days' use of this, the photophobia was somewhat lessened, but the conjunctival injection increased. A two-grain solution of the acid was then given, to be applied thrice daily, and to be followed by the atropia. In two days the redness had again disappeared, and in four days more the photophobia had gone, and the eye was free from inflammation.

In another case of scrofulous kerato-conjunctivitis, with a large pelvet-cula upon the cornea, a solution of the same strength was used in connection with atropia for two days, without causing any irritation whatever, when, as the improvement was not satisfactory, yellow oxide of mercury ointment was substituted with advantage.

These two cases are of especial interest as showing how entirely free from irritating properties the acid is, for there is perhaps no condition in which the eye is so intolerant of a stimulant as in scrofulous keratitis, and had I used in either of these even a quarter-grain solution of nitrate of silver, or a half grain solution of sulphate of zinc, the consequence would in all probability have been decidedly unpleasant.

In a patient of strumous diathesis, under treatment for stricture of the nasal duct, a superficial keratitis of the affected eye, accompanied by conjunctival injection, supervened, and proved of most obstinate character. Besides constitutional remedies, atropine, pilocarpine, belladonna and opium fomentations, and hot water, had each been tried in vain. Finally, an ointment of iodoform (gr. x. to vaseline, ʒj) was tried, and under its influence and that of atropia a decided improvement set in; when suddenly, and probably as a result of the long-continued use of the atropia, a catarrhal conjunctivitis appeared. Fortunately, I had by this time learned the virtue of boracic acid, and so, discontinuing the other remedies, I ordered a two-grain solution of it, to be applied three times a day. In three days the conjunctivitis disappeared, and when I next saw my patient, at the end of a week, no redness remained, and the cornea was better than it had been for weeks.

A girl, seventeen years old, with extensive nebulous opacities in the cornea of the right eye, the remains of a severe scrofulous ophthalmia, reported at the dispensary a few days since, suffering from a recurrence of corneal and conjunctival inflammation. She had previously had several such relapses, and they had usually yielded, though slowly, to atropia and yellow oxide of mercury. In this instance I directed simply a two-grain solution of the acid to be applied three times a day, first, however, instilling a ten-grain solution, which produced no more smarting than as much water would have done. In two days she returned, with the inflammation entirely relieved.

How far the good effects of the boracic acid in the cases I have related were due to its antiseptic properties, and how far simply to its astringent action, I am not prepared to say, though I am disposed, since it is so feeble an astringent, to ascribe them, and more especially its influence over purulent and catarrhal conjunctivitis, in great part to the former. However this may be, I am confident that in the treatment of eye diseases, boracic acid has open to it a wide field of usefulness; and unless the results which I have obtained from it thus far prove to be exceptional, I believe it will, ere long, obtain a position in ophthalmic therapeutics second only to that of atropia. To those who are sufficiently familiar with this department of surgery to appreciate the immense advantage which will accrue from the possession of an agent capable of arresting purulent and muco-purulent discharges from the conjunctiva, and yet so bland in its action as to cause no irritation, even in phlyctenular keratitis, this prediction will not seem unreasonable.

The affections to which it seems especially adapted are: purulent conjunctivitis, including gonorrheal ophthalmia, and ophthalmia neonatorum; catarrhal conjunctivitis; asthenopia from whatever cause aris-

ing, and the conjunctival hyperæmia which usually accompanies it; and, I think I may add, granular conjunctivitis, although it so happens that I have not yet had an opportunity of testing it in this condition. In phlyctenular ophthalmia, atropia and yellow oxide of mercury in most cases leave little else to be desired, but when the inflammation is chiefly conjunctival and somewhat catarrhal in type, these remedies do not always act so well, and in this condition boracic acid will, I think, be found of service. In relieving atropinism, and when used with the atropia in preventing it, it is undoubtedly efficacious. In inflammatory affections of the cornea my experience of its action is as yet limited, but so far as it goes is *decidedly* favorable; and I would recommend its use in pannus, in ulcerative and suppurative keratitis, and in the various forms of diffuse corneal inflammation. As an adjunct to the probe in the treatment of lachrymal affections, it promises to be of much value. In marginal blepharitis, an ointment, containing ten grains of the acid to a drachm of simple cerate, has been of unmistakable service in some cases. And, finally, with boracic acid substituted for carbolic acid, the principles of antiseptic surgery may be applied to the graver operations upon the eye, with a prospect of better success than attended the recent experiments of Alfred Graefe in this direction.

As to the proper manner of employing the acid in the different conditions I have enumerated, much will have been gathered from what has gone before. In asthenopia, in catarrhal conjunctivitis, and in keratitis, I would recommend a solution containing from two to four grains to an ounce of distilled water, giving preference in most cases to the latter strength. As a rule, three or four times a day will be sufficiently often to apply it, but, if necessary, I believe it may be used more frequently with safety. In the different forms of purulent conjunctivitis, and more especially in gonorrhœal ophthalmia, stronger solutions will probably be required; and since even a saturated solution (gr. xx. to ℥ j.), as I have before stated, causes only the most trivial and momentary irritation, I think it will be better, when the case can be kept under observation, not to trust to one of less strength.

It would be deemed, perhaps, an oversight, should I conclude this paper without alluding to the fact that for a long time biborate of soda has enjoyed an extensive reputation in eye diseases. It so happens that my experience with this salt has not been such as to induce me to place much confidence in its efficacy, and so I have seldom employed it, and, it may be, have underestimated its value. Such virtue as it possesses, I am now sure is derived from the boracic acid which enters into its composition, and which, through its union with soda, seems to lose in great part its efficiency.

Since the foregoing was written, I have had an opportunity of testing the acid in a second case of ophthalmia neonatorum, in two cases of chronic granular conjunctivitis with pannus, and in three cases of corneal inflammation of traumatic origin. In the first named, where there existed a profuse purulent discharge, a ten-grain solution was ordered to be dropped into each eye every three hours. In twenty-four hours there was an appreciable diminution in the discharge; in forty-eight it was greatly lessened, and had lost its purulent character; and to-day (this being the fourth since the treatment was commenced) the discharge is slight, the swelling of the lids and conjunctiva nearly gone, and the eyes are already out of danger. The child was six weeks old; the inflammation had begun about the ninth day, and had grown much worse during the few days preceding the inception of the treatment.

In the next two cases, I began with a four-grain solution. In one this is still being used with decided benefit, in the other, in which an acute attack of corneal and conjunctival inflammation had set in, it had no effect, but a twenty-grain solution which has been instilled thrice daily for the past three days has been well received, and is certainly doing good.

In the last three, the effect of a four-grain solution has in each been surprisingly favorable. One of them, a stone cutter, while suffering from a catarrhal conjunctivitis, received a blow from a bit of stone upon the right cornea. After having used atropia for several days, his eye meantime getting worse, he came to me with a decided conjunctivitis, the lower half of the cornea quite misty, and a more opaque spot, with epithelium abraded, just below the centre of the cornea, marking the site of the wound. The atropia was discontinued and boracic acid only used. It produced a much pleasanter impression upon the eye than the atropia had done, and in two days the mistiness of the cornea and the conjunctivitis had disappeared.

It is evident that besides the astringent and antiseptic properties which boracic acid possesses, it exerts, when applied to the eye, a topical influence which may be properly termed sedative or anodyne.

6 Cathedral St., Baltimore, Jan. 16, 1880.

THE HEATONIAN OPERATION FOR THE CURE OF HERNIA.

By W. B. DeGarmo, M.D.,

New York.

In 1871 I became interested in this method of curing the three forms of abdominal hernia designated inguinal, femoral, and umbilical.

As I was then devoting my entire time to the study and mechanical treatment of these affections, I was frequently brought into communication with cases which had been operated upon by Dr. Heaton, in most instances successfully, and by all it was endorsed and spoken of as a simple, almost painless operation. Being desirous of becoming familiar with the procedure, I addressed a letter to Dr. Heaton in April, 1872, asking if he would inform me as to his method of operating. In response he told me, in a very gentlemanly manner, that he had not seen fit to give to the profession the operation he had been successfully using for the preceding twenty or more years; but, as he contemplated at some future date making it known, that I, with others, would have all particulars concerning it. During the next five or six years I met with others who had been under his treatment. From the early and increasing interest which I had taken in this operation, it was with great pleasure that I received one of the first copies of Dr. Heaton's work, sent to this city in 1877.

After its careful study I became even more firm in my conviction that there was merit in it, and, in conversation with Dr. Geo. F. Shrady, so expressed myself; and I then entertained the hope that those surgeons whose hospital appointments gave them ample opportunity, would test it and place the operation upon its true basis. In the latter I have, however, been disappointed, as it has been given very little attention by the profession, with the exception of Dr.

Shrady, who has from the first looked upon it with favor. This fact may be attributed to two causes, viz. 1st. That Dr. Heaton, from keeping his method secret, was ostracized from the regular profession, and justly looked upon with distrust. 2d. That the simplicity of the procedure created a lack of faith in the minds of surgeons who had always hitherto been taught to look upon hernia as incurable, except by operations of greater magnitude. The question now is: Are these sufficient causes to warrant the profession in casting this operation aside without consideration or trial? I think not.

Dr. Heaton, in his earlier days, invited certain then eminent men in Boston to be present at one of his operations. I am reliably informed that it was the manner in which they treated this invitation which first induced him to keep from the profession that which he had expected to give them. Shortly after this he went to England, where he operated in the presence of some of the most noted surgeons of that day. Sir William Fergusson, who witnessed the operation and its results, without being informed as to how it was done, says of it:

"From circumstances which have come to my knowledge, I think it possible that something more than is yet generally known may be done for persons afflicted with hernia. Some years ago I saw in London a gentleman of high standing and character in the United States, who had been radically cured of a reducible crural hernia. I afterward saw the surgeon who professed to practise this method, and was promised the knowledge of it provided I permitted reference to my name and bound myself to secrecy. I declined such a compact, but offered every other facility which either King's College Hospital or my own position could command. These proposals were not complied with; and I should scarcely have considered myself justified, in such a work as this, in taking notice of a professional matter of such importance, had I not been impressed with the idea that the surgeon in question was strictly honest." *

In considering whether the simplicity and the apparent mildness of the procedure should condemn it, we should not forget the fact that many hernias, some of them large ones, are entirely cured simply by the use of a properly adjusted truss; and I will here add, although foreign to this paper, that many more cures might be obtained by this means if surgeons would attend their patients themselves, instead of sending them to persons who are wholly ignorant of the pathology—hence, the proper treatment, of these affections. As one of the most important surgical affections, is it not entitled to the surgeon's most careful personal attention? Were we to turn back the pages of surgical history three hundred years, we would find in the writings of "that famous Chirurgion, Ambrose Parey," that which we should keep in constant remembrance. He relates the case of a priest with hernia, the "biggeness" of which unfitted him for his duties, cured by a truss, and remarks that "it is most worthy of observation and admiration that Nature, but a little helped by art, healeth diseases which are thought incurable." †

If we admit, as we certainly must, that hernia is not infrequently cured by means of the truss, and that, where the sac is *not* returned, nor obliterated, and when there has been nothing to cause adhesion or plugging-up of the canal, we ought not deny that there is a possibility of restoring that canal to its normal size by the operation used by Dr. Heaton.

In reviewing the literature of this subject, we find that the principal operations have been based upon the idea of obliterating the sac, and that it has been incised, excised, ligatured, injected, transfixed, scarified, and treated by acupuncture, all to no avail; for, when removed entirely, a new one readily forms as long as the canal or aperture through which the hernia has occurred is not sufficiently closed to retain the protruding viscera. Heaton believed that these violent procedures were not only dangerous, but useless. In his earlier experiments, he was surprised to see that "whenever the early results were seemingly unsatisfactory because of too little apparent effect, it proved the best as to permanent cure." And he says (p. 37): "I lay it down, therefore, as a cardinal principle in all operations for the cure of hernia, that any inflammation, except the mildest grade, must be carefully avoided."

In performing his operation, Dr. Heaton for many years used an instrument closely resembling the hypodermic syringe, except in the following particulars: it was in every respect stronger, and the needle was made from solid steel wire, bored through the centre with a small drill; and the end, instead of being pointed, is flattened out to a cutting edge, with holes on each side for the exit of the fluid. Dr. Heaton directs that the operator introduce the beak of the instrument into the canal in the following manner: invaginate the right forefinger into the scrotum, and, after locating the external ring, press with the left forefinger, perpendicularly, upon the integument directly over this ring; the left forefinger being at or in the ring—the sac, if remaining out, and cord being held out of the way—the needle is passed quickly into the external ring, and then gently insinuated high up in the canal. About ten minims of the irritant is then distributed over the interior of the canal by ejecting the fluid drop by drop. The patient is then tightly bandaged with a compress over the canal, and for about six days kept in a recumbent position. The irritant used is composed of—

℞ Ext. quercus albæ ..... gr. xxviij.
Ext. quercus albæ ..... fl. ʒ i.
Morphiæ sulphas ..... gr. i.
M.

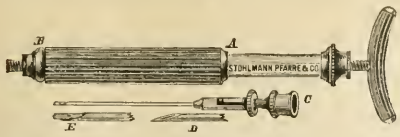
The pain following the operation is slight, and passes away entirely in from two to four hours, without increase in either pulse or temperature.

Having experienced some difficulties in the use of Dr. Heaton's syringe, and especially in being unable to deposit the irritant gradually, owing to the unsteady action of the piston of the syringe, I had one made similar to that shown in the cut. My first modification was in the addition of a screw-piston with crescent-shaped bar at the end of the same, and in having the exterior of the barrel furrowed (*A* to *B*) instead of smooth. The needle was the same as that used by Heaton. In this form I have used the hernial syringe with perfect satisfaction; but, in order to deprive the operation of its only remaining dangers, I have now had constructed what might be termed a trocar-needle. Its construction will be readily understood by reference to the cut on the opposite page: *C* represents the entire needle; *D* represents the cutting-point of the needle exposed; *E* shows it with the point protected in such a manner that no injury can be done to the canal or vessels.

The hernial syringe is used in the following manner: it should be charged by removing the needle

* Fergusson's System of Practical Surgery, 3d Eng. Ed., p. 545.
† The Works of that famous Chirurgion, Ambrose Parey, p. 807. Paris, 1579.

from the barrel and filling the latter two-thirds full; the central part of the needle is then replaced; then, with beak elevated, sufficient of the irritant should be ejected to leave the barrel about half full. By this



means all air is expelled and the perfect action of the syringe is secured. The sheath is now slipped on and it is ready for use. After penetrating the tissues with the cutting-point of the sheath, it is drawn back so that it is perfectly protected, and the beak is then carried well into the canal without fear of injury to its tissue, or to the vessels and nerves which are in close proximity to it. The crescent of the piston is now held firmly in the palm of the hand, and the barrel of the syringe is revolved between the thumb and finger of the same hand. In this manner the needle is revolved and at the same time is gradually withdrawn, thereby traversing the entire length of the canal and distributing the irritant over its interior surface. The after-treatment corresponds in every particular with that given by Dr. Heaton, except that I advocate applying a light truss for at least six months in every case.

The capacity of the syringe is twenty minims.

At a future date I shall give the history of a number of cases operated upon by the foregoing method, and hope that others who perform this operation will make known the results.

116 East Thirtieth Street.

MEDICINAL SPRING WATERS.

By JOHN C. PETERS, M.D.,

new york.

IV.

The ludicrous side of mineral waters is rather conspicuous in those of Krankenheil, or *Disease-curing*, in Bavaria, the principal constituent of which is $2\frac{1}{2}$ grains of bicarbonate of soda in each 16 ounces of the water, aided by $1\frac{3}{4}$ grains of table-salt, $\frac{1}{10}$ of a grain of iodide of sodium, $\frac{2}{100}$ of a grain of silicate of alumina, and $\frac{9}{100}$ of a grain each of sulphate of potash and soda. Of course they are recommended for scrofula and diseases of the skin.

The celebrated Kreuznach waters are generally stated to be strongly iodized, powerfully tonic and stimulant to the lymphatic system, and are used for constitutional syphilis, diseases of the skin, rheumatism, scrofula, paralysis, tuberculosis, and leucorrhœa. They contain scarcely $\frac{1}{8}$ of a grain of bromide of magnesium in each 16 ounces, and $\frac{8}{100}$ of a grain of iodide of magnesium. But they also hold in solution from 72 to 108 grains of table-salt, 13 to 22 grains of chloride of lime, 4 grains of chloride of magnesia, and a little more than $\frac{1}{4}$ grain of chloride of lithium.

The Kronthal waters of Nassau are resorted to by persons suffering from chronic bronchitis and other affections of the lungs, but they merely have from 22 to 27 grains of table-salt in each pint, and 4 to 5 grains of carbonate of lime; but great stress is laid upon the $\frac{5}{10}$ of a grain of carbonate of iron, and the $\frac{2}{10}$ of a grain of carbonate of manganese, which may or may not be found by careful analysis.

The Labassère waters, of the *Hautes Pyrénées*, are also celebrated in the treatment of bronchial and laryngeal catarrh; but the largest constituent of the $3\frac{1}{2}$ grains of solid salts contained in each 16 ounces is $1\frac{1}{2}$ grain of table-salt.

The Landeck waters of *Prussian Silesia*, also strongly recommended for bronchial catarrh, have only $1\frac{1}{2}$ grains of salts in each 16 ounces—sulphate of soda and bicarbonate of soda, of each $\frac{1}{2}$ grain, being the largest constituents.

The Leuk baths of *Switzerland* are said to have a diuretic action, and to be useful in catarrh, swelling of the glands, and skin diseases. The principal component is sulphate of lime or gypsum, $12\frac{1}{2}$ grains in each 16 ounces, and nearly 2 grains of sulphate of magnesia; all the other nine constituents are found in proportions varying from $\frac{1}{100}$ to $\frac{8}{100}$ of a grain.

The Lucca baths of *Central Italy* are widely celebrated for chronic rheumatism and skin diseases. They have nearly 6 grains of sulphate of lime in each 16 ounces of water, and 1 whole grain each of table-salt and of sulphate of magnesia.

The Marienbad or Empress Maria spring waters of *Bohemia* are largely used in abdominal tumors and enlargements, in gravel, gout, derangements of the digestive organs, and glandular swellings. The principal ingredients in the five springs are sulphate of soda (Glauber salts), from 5 to 36 grains in each 16 ounces, with from 5 to 12 grains of bicarbonate of soda, 2 to 15 grains of table-salt, 2 to 6 grains of carbonate of lime, 4 to 5 grains of carbonate of magnesia, $5\frac{1}{2}$ grains of carbonate of iron; that is, from $\frac{1}{12}$ to $\frac{1}{2}$ teaspoonful of Glauber salts in a pint of water, with a little table-salt and soda.

The Paffer and Ragatz waters of *Switzerland*, which are much used on the spot, have only $2\frac{1}{2}$ grains of salts in each 16 ounces, the largest quantity being $\frac{8}{10}$ of a grain of carbonate of magnesia.

The Plombières waters of the *Vosges, France*, so often visited by the Emperor Napoleon III., have only $1\frac{1}{2}$ to 2 grains of salts in each 16 ounces, the largest constituents being $\frac{6}{10}$ of a grain each of silicate of soda and sulphate of soda. They are said to be especially useful for spinal and female complaints.

The Pullna waters of *Bohemia* have no less than 248 grains of salts in each 16 ounces, of which 123 grains are sulphate of soda or Glauber salts, and 93 grains sulphate of magnesia or Epsom salts.

To be continued.

Hay in the Horse-Cars.—The Medical Inspector of the Philadelphia Board of Health has been investigating this subject, and this is what he says: "During wet weather this material makes a very objectionable covering for the floor. When saturated with water it produces cold feet, besides absorbing noxious exhalations. The practice is, among the most of the passenger street roads, to cover the wet hay with a layer of dry during rainy days. This mass is often left in the cars a sufficient time to develop heat and partial fermentation. I asked each conductor as he came to the terminus how often the hay was changed in the cars, and was informed by some that it was changed three times a week, by others frequently, and by two that it was changed once each week. It had been evidently removed since the rain a few days previous to my visit. While not specially objectionable in this instance, nevertheless I consider the use of hay in the cars during the winter detrimental to health. If the committee approve, I will visit the cars of this line immediately succeeding a rainy day."

Progress of Medical Science.

Latent Albuminuria: its Etiology and Pathology.—Albumen, in varying quantities, is frequently observed in the urine of apparently healthy individuals, and opinions have been advanced that its presence is not always evidence of disease of the kidneys, but that it may sometimes be a physiological phenomenon. In opposition to this, Dr. George Johnson, of King's College Hospital, maintains that latent albuminuria—that is, albuminuria unassociated with any other evidence of functional disorder or structural disease—may, by a careful inquiry, be traced back, in a very large proportion of cases, to some probable exciting cause; that the presence of even the smallest trace of albumen in the urine is always pathological; and that the neglect of this pathological condition and tendency, especially such negligence as involves repeated exposure to the exciting cause, may convert a temporary and occasional into a persistent albuminuria, which, sooner or later, though it may be after many years, will result in a fatal disorganization of the kidney. One of the most prolific causes is acute nephritis, which may result from exposure to cold and wet, or may occur in connection with some acute febrile disease. Careful observation in some of these cases has shown that, in spite of apparent convalescence, the albuminuria may continue for months and years. In testing the urine, the influence of food and exercise should be carefully noted, for, it not unfrequently happens that no albumen will be found, except after meals or violent exertion. Latent albuminuria may be caused by exposure to cold and wet without any recognizable attack of acute nephritis. The sudden checking of perspiration after violent or prolonged exertion, while the blood is loaded with the products of disintegrated tissue, may give rise to an albuminuria that may remain latent for an indefinite period, and which, when discovered, can only with great difficulty be traced back to its original cause. Among other causes may be mentioned imprudently prolonged cold bathing, excessive consumption of animal food, alcoholic stimulants, and dyspepsia. The disturbance of the kidney may be secondary to disorders of the liver, and it may occasionally be caused by excessive tobacco-smoking, through the gastric and hepatic disorders occasioned by this habit. There is probably a real etiological relation between mental anxiety and some forms of albuminuria, but Dr. Johnson does not give this cause the same prominence accorded it by Dr. Allbutt. The occasional appearance of a small amount of albumen after food and exercise, or exposure to cold, if not traced to its exciting cause, and if the cause be not such as can be avoided or counteracted, will almost certainly, at no distant period, become a persistent albuminuria; and persistent albuminuria leads on, sooner or later, to fatal degeneration of the kidneys. It is of the utmost importance to impress upon the patient the necessity for a continuous systematic treatment, dietetic, hygienic, and medicinal, adapted to the circumstances of each case.—*The British Medical Journal*, Dec. 13, 1879.

Neurotomy: a Substitute for Enucleation.—The lamentable effects which a sightless eye frequently produces upon its sound fellow has established as a law of ophthalmic surgery that an eye lost from accident, and which continues to be painful, is a dangerous organ. There are many cases, however, in which, in spite of the uselessness of the organ, and the recognized danger of sympathetic affection of its companion, strenuous objection is made to enucleation. In order to gratify the desire of these patients, and at the same time to preserve them from the anticipated evils, Dr. Chisolm proposes division of the nerves entering the eyeball. As is well known, most of these nerves pierce the sclerotic in the immediate neighborhood of the optic nerve entrance, in conjunction with many of the vessels supplying the eye. The operation is performed by making a vertical incision over the tendon of the internal rectus muscle; this tendon is then divided, and the eye rotated forcibly outward by traction on the insertion of the tendon; a pair of strongly curved scissors is next introduced, and all the tissues in the neighborhood of the optic nerve divided. Deep sutures are placed in the severed muscle, the eye closed, and simple water-dressings applied. The hemorrhage is sometimes considerable, requiring a compress and bandage to control it, but it does not usually last long. Owing to the escape of blood into the posterior portion of the orbit, there is generally a good deal of exophthalmia, which, however, soon disappears. In the seven operations performed, recovery has been rapid and the success perfect. Dr. Chisolm thinks he can confidently recommend this operation to the attention of the profession, as possessing, in many cases, all the advantages of enucleation without the disadvantage of the subsequent use of an artificial eye.—*Reprint from the Va. Medical Monthly*, Nov., 1879.

Effect of Tincture of Arnica on the Skin.—M. Donaud has reported to *La Société Médicale de Bordeaux* two cases of remarkable susceptibility of the skin to the action of tinct. arnica. The pure tincture had been applied for insignificant injuries, when vesication and subsequent inflammation were developed. This action of the drug has already been noticed by a German surgeon, and in the discussion following the reading of the paper, MM. Bourrier, Demons, and Armaignac said they had seen similar cases.—*Le Courrier Médical*, Nov. 29, 1879.

Spermatic Colic.—Under this title, M. Reliquet reports a curious case, occurring in a man twenty-five years of age, in which he had diagnosticated prostatic tubercle, and which presented the following symptoms: violent pain during coition; painful sensations in the perineum, with frequent desire to urinate while riding in a carriage; frequent and violent emissions from the urethra of a liquid analogous to the spermatic fluid. Rectal examination revealed an inequality of the prostatic lobes, the right lobe presenting a well-defined swelling, which was continuous posteriorly with the vesicula seminalis. Pressure with the finger was painful, and induced a desire to urinate. A sound was introduced into the urethra and the tumor compressed between it and the finger. This manœuvre caused the expulsion through the urethra of a grayish mass, resembling vermicelli, and which examination showed to consist of altered spermatozoa, and mucus. The spermatic colic, the retention of the semen in the ejaculatory duct, was the cause of all the symptoms. After repeated sounding, and further evacuation of the retained mass, the tumor disappeared and the reflex troubles of micturition were relieved.—*Journal de Médecine et de Chirurgie*, Dec., 1879.

Growing Fevers.—Certain unexplained troubles peculiar to the period of development, usually com-

prised under the vague name of *growing fever or sickness*, have been the subject of careful investigation by M. Bouilly. The following are the conclusions to which he has arrived:

There are among young subjects certain fevers which are caused by sudden attacks of congestion in the neighborhood of joints, in the epiphyseal zone.

These attacks may be apyretic, announcing themselves only by pain and the increased size of the joint.

This is the mildest form of the osteomyelitis of children and youths—the juxta-epiphyseal osteitis of Gosselin, and may explain the so-called *growing fevers*.—*Gazette Médicale de Paris*, Nov. 29, 1879.

Carica Papaya.—The physiological action of the carica papaya, or papaw tree, has been made the subject of investigation by Dr. Moncorvo, of Rio Janeiro. The juice of the fruit, obtained in small quantities by expression, was the portion experimented with; but, owing to the difficulty of collecting more than a very small quantity, and to the rapidity with which it undergoes fermentation, no satisfactory analysis of it has as yet been made. The most curious effect of this drug is exhibited in meat submitted to its action. Finely chopped meat, macerated in a ten per cent. watery solution for twenty-four hours, is entirely dissolved, and exhales a very strong and insupportable ammoniacal odor. If, instead of this lengthy maceration, boiling for five minutes be substituted, the disintegration is almost as complete, the meat being reduced to a pulpy consistency. Albumen, boiled for three minutes in a solution of papaya juice, is first coagulated by the heat, and then dissolved. On starch, apparently, no action is developed.—*Journal de Médecine de Bordeaux*, Dec. 6, 1879.

A New Test for the Amyloid Substance.—The new reagent employed by Weiss for the detection of amyloid matter is safranine. It occurs in commerce as a dark red powder, and is obtained by the action of nitric acid and arsenic on impure aniline. It is very soluble in alcohol, less so in water. Sections submitted to the action of a watery solution of this reagent show, under the microscope, a beautiful orange-yellow staining of the amyloid substance, while the rest of the specimen is of a beautiful rose-color. If the safranine be dissolved in water acidulated with acetic acid, the whole preparation presents a uniform rose tint—a phenomenon that Weiss is unable to explain. The coloring takes place very rapidly; the connective tissue is less tinted than the epithelial cells, and the cells less than their nuclei. Thick tissues color well; those which have been hardened in alcohol still better; but not those that have been treated with chromic acid, or with the chromates. Preparations thus colored may be preserved for a long time in a saturated solution of acetate of potassa. A few grains of safranine dissolved in a glass of water are sufficient, in many instances, to color microscopic preparations.—*Lyon Médical*, Dec. 28, 1879.

Treatment of Phthisis by Inhalations of Benzoate of Soda.—Prof. Rokitansky is disposed to think very highly of this treatment, although he is as yet unprepared to publish the results of his observations. He thinks that the method in which the inhalations are practised is of great importance, and that they should, therefore, be always taken under the supervision of the physician. In order that the spray may find free access to the throat and lungs, he directs the patient to draw the tongue forward or to hold it down with a spatula, and then to take deep inspirations until coughing is excited. The inhalations are repeated until the cough is no longer followed by expectoration. He assumes that the tubes are then cleared of mucus, and that the medicine comes into direct contact with the mucous membrane. The inhalations are practised morning and evening, and the patient is kept for an hour afterward in the room, the air of which has become more or less impregnated with the benzoate of soda. As Buchholz and Klebs have shown that this drug destroys bacteria with certainty only when administered in the proportion of $\frac{1}{1000}$ of the weight of the body, Rokitansky makes his patients inhale daily one grammo of the drug (in a five per cent. solution) for every $2\frac{1}{2}$ lbs. of their weight. He attributes to this medication, first of all, a destructive action on bacteria; and, secondly, a mechanical action on the pathological secretions, which are rendered more liquid and are more readily removed from the air-passages. This results in an amelioration of the catarrhal symptoms, and perhaps prevents the transformation of the secretions into caseous masses. Further, he believes that the forced inspirations and expirations dilate the air-vesicles and counteract the compression of the vesicles by interalveolar tubercular masses. He is convinced, moreover, that the benzoate of soda, when used in this manner for a long time, acts also as a febrifuge. Of course, he combines with the inhalations the usual hygienic and dietetic treatment.

Dr. Schnitzler, of Vienna, on the other hand, is inclined to be skeptical with regard to the value of these inhalations. For the sake of experiment, he made a large number of patients inhale a five per cent. solution of benzoate of soda, which had been colored with a few drops of aniline, or alternately solutions of tannin and perchloride of iron, and, on examining them afterward with the laryngoscope, found the mouth and pharynx uniformly discolored by the solutions, while the larynx and trachea presented only a few isolated discolored spots. From this he argues that atomized liquids do not penetrate to any extent into the bronchi, and that the marvellous effects attributed to the benzoate of soda, if not entirely illusive, must be ascribed to the volatilization by heat of the benzoic acid, which can then undoubtedly penetrate into the smallest tubes. Hence, he claims that it would be more logical to employ directly the volatile benzoic acid for the inhalations, and that if any special curative action be expected from the benzoate of soda, it would be preferable to administer it internally, when the same results could be obtained with much smaller doses. He closes his paper by recommending, as an antiparasitic treatment of phthisis, the inhalation and subcutaneous injection of carbolic acid, a treatment which he has employed for three years with relatively very favorable results.—*Annales de la Société Médico-chir. de Liége*, November, 1879.

Tuberculosis.—Professor Cohnheim declares himself in favor of the view that all tubercular processes are infective in origin. Dr. Schueppel thinks that bacteria underlie them, and hence the appropriateness of all anti-parasitic remedies.

Treatment of Gastric Inflammation.—Injections of cold water into the rectum, according to Winternitz, rapidly lower the temperature of the stomach. It is inferred that such enemata may be of service in some gastric disorders.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE EDUCATION OF THE GENERAL PRACTITIONER.

A very valuable report has lately been presented by a committee of the Metropolitan Branch of the British Medical Association. This committee was empowered to investigate the question of medical education. The members consisted of prominent medical teachers and general practitioners, Dr. Andrew Clark and Messrs. Savary, Bryant and Wood being among them.

Circulars were sent out to a large number of medical men, and over four hundred replies were received to certain questions that were propounded. Some of the details deserve recording.

The first question was: "Is it desirable that intending medical students should pass an examination in the elements of botany, physics, and inorganic chemistry prior to admission to the regular curriculum?" To this question ninety per cent. of teachers and ninety-six per cent of general practitioners gave an affirmative answer.

The second question was: "Is it desirable that a certain period, previous to admission to a medical school, should be spent with a general practitioner in the form of articled pupilage?" The answers to this question showed much diversity of opinion. About three-fourths of the teachers were opposed to articled pupilage in any form, and about the same proportion of general practitioners were in favor of it. The argument given by the teachers was that the slight amount of knowledge picked up during an apprenticeship only made the student flippant and conceited, and unfitted him for subsequent systematic work. The arguments of the practitioners were based on the fact that they generally found medical students deficient in tact, in the art of prescribing, and in handling the patients of whom they were put in charge.

Nearly ninety five per cent. of those questioned believed that the age of eighteen years should be attained before the student enters a medical school. With the four years' course in English schools, this would make the youngest age for graduation twenty-two.

The fourth question was: "Do you approve of the introduction of an examination in elementary anatomy and physiology at the end of the first year of medical studies?" Strange to say, only a small majority favored this plan, it being urged that it would press too severely on provincial students, and keep up a harassing state of nerve tension. The committee, however, recommended that some such examination ought to be held, as it would be a stimulus to work during the first year.

With this conclusion we heartily agree, as the first year is, under the ordinary plan, generally given up to testing various brands of tobacco or the toxic properties of alcohol, and in the easy and comfortable absorption of such medical lore as a semi-soporific condition during lecture hours will take in.

The value of graded courses and annual examinations is now very generally admitted, and is adopted more extensively every year. Even in the two colleges in this city which do not have a graded course, an examination in anatomy and physiology is held, which first course students can take if they choose. The great drawback to such examinations is not the nervous tension from overwork and anxiety, but the fact that the student, having passed in these branches, thereafter neglects them and graduates often in the greatest ignorance of the studies with which one or two years before he was tolerably familiar. We have often been told, by students who had studied under the graded course system, that they were allowed to graduate, although they had quite forgotten their anatomy, physiology, and chemistry. It cannot, of course, be otherwise, under the usual graded plan. But there is an easy remedy.

The yearly examinations should embrace more of the branches each year, and the final examination should include all. If a medical student cannot carry enough of all these studies in his head at once to pass a degree examination, let him take up some less trying profession. Yearly examinations are stimulating and beneficial; but it is hardly right to graduate students who have not been examined for two years in, for instance, so easily forgotten yet essential a science as anatomy. As regards the other questions submitted by the committee, we believe that the views expressed by the majority are sound, and that the profession in this country will very generally endorse them as applicable to our own schools. We have not had for many years any system of articled pupilage, nor would it be possible to introduce such a system in this country. Nearly every medical student, however, especially if from the country, has his

preceptor, with whom he studies and rides during the summer or in the intervals between the lecture courses. Perhaps he is sometimes made supercilious and over-confident by this slight taste at the Pierian spring; the practice is, however, a very beneficial one. Indeed, so small a per cent. of students get any hospital or dispensary practice, that this plan of going out with the preceptor is often absolutely essential.

We must, in conclusion, commend the method which the committee adopted of sending out among the working and teaching members of the profession for opinions on the subject of medical education. It not only secures information that can be relied on, but it excites a wider interest among medical men concerning a subject which is vital to the growth and standing of the profession.

AN ADVOCATE FOR FAST EATING.

Dr. J. F. Hibberd, in the *St. Louis Journal*, advances a number of reasons in favor of rapid eating rather than slow. He claims that in his experience those who "bolt" their food are the healthy members of society, while those who eat slowly and masticate thoroughly are always dyspeptic and sickly. His explanation is, that well-masticated food passes from the stomach almost immediately and before it has been acted on by the gastric juice, while large pieces of food are retained until softened and dissolved by the digestive process.

This reasoning of the doctor is fallacious. Those who bolt their food are healthy because only the healthy can adopt so disgusting a habit. When they begin to get dyspeptic from their immoderation, they have to eat more slowly. The general experience of physicians for many years has been that rapid eating is a cause of dyspepsia. This opinion is in accordance with physiological facts. In regard to the present "new view," it is well enough to allow the medical imagination to work itself off occasionally in startling hypotheses. When such a hypothesis, however, violates good breeding and common sense, and would revert us all to a carnivorous type, we believe it should not be quoted without a condemnation.

THE BILL FOR THE CREATION OF A STATE BOARD OF HEALTH.

The advantages to this State of a board of health have often been presented by us, and are now generally acknowledged by every one. There have always been, however, some practical difficulties in the way of establishing such an organization. The danger of State authority conflicting with local, has been especially felt with us, as it has been in Pennsylvania. But this difficulty has never appeared insurmountable, and we are very glad to announce that a bill has at last been prepared and introduced into the legislature, which seems likely to secure the desired harmony between State and city authority.

This bill was drawn up by the attorney of the New York City Health Board. It has received the approbation of that Board, and of a number of prominent sanitarians and medical men. Arrangements have also been made to have it energetically pushed at Albany, and there is a reasonable hope of its passage.

The bill provides for a State Board of Health, composed of nine members. Three of these, to be called Commissioners of Health, are to be appointed by the governor, with the consent of the senate. Of these three, two are to be physicians of at least seven years' practice. These three, together with the Attorney-General, the State Engineer, the Health Officer of the Port of New York, and three other persons, one of whom must be a member of the New York City Board of Health, and the other two, members of some regularly organized city health board, are to constitute the "Board of Health of the State of New York." The first three commissioners are to serve for three years. The term of service for the remaining six will depend upon the length of their holding their local offices.

We may remark concerning this part of the bill, that it leaves a possibility of their being but three physicians on the State board, and under the present administration two of these may be homœopaths. Such a contingency is an undesirable one. It is the medical profession which will contribute most to the work and practical usefulness of the board. That profession, therefore, should, with the civil engineer, make at least a majority of the nine commissioners.

The board is to have power to elect its officers and enact by-laws. It can also elect a secretary from its own members, or, if it wishes, from outside, thus increasing the number of members to ten. This secretary is to be also the executive officer. He is to receive a salary of $3,000 a year. The other members serve without pay.

The duties of the board, as laid down, are to take cognizance of the interests of health and life among the people of the State. It is to investigate the causes of diseases, especially of epidemics. It is to examine into the effect of localities, employments, and other conditions, upon public health. It is given general supervision over the registration of births, marriages and deaths; the secretary of the State board being made the superintendent of registration of vital statistics for the whole State. Local boards must forward to him reports of all their work. The governor may, at any time, require the State board to investigate alleged nuisances, and, upon a report, the governor takes action or not, to have such alleged nuisance abated.

Should any sanitary matter that properly comes under the jurisdiction of a city health board be thus investigated by the State, one of the members of that

Board may be selected to meet the State commissioners, such local health officer is empowered to take part in the deliberations, but can have no vote. This is the plan by which it is hoped to make the local and State organizations work harmoniously together. The governor can order the State board to investigate a nuisance anywhere; and if pronounced a nuisance, he can order it abated, even if it be in city limits, and a matter to which local authorities should attend. The only check which municipal authority has upon State interference is the voice in council, but not the vote, of one of its health officers. The authority given the State board is thus quite large. It is not likely, perhaps, that it will be abused; still, this is a point which should bring out full discussion.

The State Board is further empowered to engage experts to make such scientific investigations as may be deemed necessary; it is also authorized to examine, when desirable, any public structures, as well as the grounds or plans thereof. The sum of $15,000 is appropriated to carry out the purposes of the act.

It will be seen that the proposed law is a very comprehensive one, and gives power to investigate, supervise, and correct all matters pertaining to the health and physical condition of the citizens of the State. It may appear that more power is granted than a new organization should possess, especially in the matter of encroaching on the field of local health boards. We do not care, however, to discuss now the special provisions of the bill; we believe that in most particulars it is an excellent one, and will create an efficient and useful State organization.

It is our duty, as a medical journal, to urge the profession to give this bill, or some modification of it, its countenance and help. A State board of health is necessary for many reasons. We need it to complete our registration of vital statistics. We need it also for the impulse it will give towards creating local health boards; a result that can be reckoned upon with certainty from the experience in Massachusetts and other States. There is need of a sanitary power which will have a wider reach than any city or county authority possesses. There are many nuisances in one county which affect chiefly the citizens of another. There are swamps and miasmatic centres created by railroads, as in the case of the Hudson River Railroad, which, in many places, has stopped the proper drainage of the soil. The pollution of streams and sources of water-supply often cannot be prevented by local authority alone. The various unsettled questions of inter-State quarantine, of epidemiology, and the more special matters of sanitary architecture, the disposal of sewage, and the value of disinfectants—all these can be greatly aided by a proper State organization.

Finally, we can hardly urge too strongly upon the medical profession the importance of paying serious attention to the subject of preventive medicine. It is to form a most important factor in the civil life of the future. The question of the sanitary organization of nations will call out the best powers of statesmen and men of science. If physicians ignore this question, it will ignore the physicians, and their position will be lowered, their usefulness narrowed. The profession should, therefore, give its countenance to the matter heartily. The annual mortality throughout civilized countries is over two per cent. It should be less than one and a half. Preventable diseases cause one-fourth more deaths than need be. These are matters for the medical profession to remember and stir themselves to remedy. We must accept the fact that the province of the doctor is not alone that of healer, but of health-officer to the family and the community. He must seek for hygienic as well as therapeutic triumphs.

With such an understanding and purpose, there will be sure to accrue an additional lustre and dignity to the profession.

There are many things now in the uncertainties of therapeutics, the passions of over-competition, and the pretensions of charlatans, that tend to drag us down as a profession. As physicians, then, we cannot afford to ignore the opportunities offered us in fostering preventive medicine. Such efforts will be repaid, not only in the practical good accomplished, but in an elevation of the professional character, and in an increased consideration from our fellowmen.

MEDICAL MEN AS WRITERS.

THERE has been of late a tendency to get contributions from medical men in leading popular periodicals. It was only a year ago that a whole phalanx of eminent English physicians appeared in the *Contemporary Review* and delivered themselves on the subject of alcohol. It was an instructive, although somewhat incongruous performance. Since then Sir Henry Thompson has attracted public attention in the *Nineteenth Century* to the subject of food. Dr. Maclagan has been an advocate of the germ theory in the same journal; Dr. Althaus and Prof. Ferrier have given popular expositions of the functions of the brain, and Sir James Paget has related the history of anæsthesia.

On this side of the water we find the profession less frequently represented in our monthlies. Nevertheless, there have been some admirable articles in the *North American Review* by Dr. George M. Beard, and a recent article by Dr. J. S. Billings in the *International Review*, will attract attention. But most of our prominent monthlies aim at high effects in art, and are very shy of anything that looks statistical and scientific.

We can find in the increasing number of popular articles on medical and allied subjects, however, an

evidence that the scientific standing of medicine is rising in the general opinion of mankind, as it is in fact. The position of the physician has been said to be the measure of a nation's civilization. It is certain that with the increased intelligence of a people more will be demanded of the medical man, and this demand, history shows, has always been responded to.

THE PRESENTATION OF THE "LOVING-CUP" TO THE ACADEMY OF MEDICINE.

The presentation of the "loving-cup" to the Academy of Medicine was very naturally the cause for considerable jubilation by the large number of Fellows present on the occasion. The circumstances attending the bestowal of the gift are pleasant to contemplate, and carry with them a significance which must not be lost on the profession. It seems to be a beginning of better things in showing that the wealthy and cultivated portion of the community represented in Mrs. Astor are willing to bear substantial testimony to the true worth of the profession, and to express a kindly sympathy in the purposes of that work which bears "so large a share of care and sacrifice."

The sentiment engraved upon the cup is most appropriate, and, we trust, will find a response not only in the heart of every Fellow of the Academy, but in that of every member of the profession throughout the country. If all medical communities could lift the "loving-cup" above the little prejudices and jealousies of professional competition, in how much clearer atmosphere the usual pledges could be offered, and how often would "peace and love be multiplied unto us"!

RANDALL'S ISLAND HOSPITAL ABUSES.

The sensational articles which appeared in last Sunday's and Monday's issues of the *Herald* with reference to the management of Randall's Island Hospital, are so manifestly untrue that we consider it a mere matter of justice to the Medical Board of the Hospital and to Dr. Howard, the Medical Superintendent, to call the attention of our readers to the subject. To those who know the condition of the Island at the present time, and what it was only two years ago, the change for the better is a subject of remark. The Medical Board, numbering seven members, has entire control over all the hospital buildings, and, like similar city hospital boards, is faithful and conscientious in the discharge of its duties.

The Infants' Hospital is a large, well lighted, well ventilated building, which, in regard to its sanitary condition, will bear very favorable comparison with similar institutions. In fact, it is probably better suited for its purpose than any other infants' hospital in the city.

The case of scalding upon which so much stress is laid by the *Herald*, was the result of an accident, which was unavoidable under the circumstances. At all events, the cause of death in this case (acute parenchymatous nephritis) had evidently no relation to the burn, if the results of surgical experience are to be relied upon.

The account of the case of the idiot boy, Joseph Leisch, appears to have been evolved out of the inner consciousness of the ubiquitous reporter. The facts simply are, that the boy was admitted to the Idiot Asylum on a regular commitment from the Superintendent of the Out-door Poor, and was then sent to the idiot school. The boy was never examined by Dr. McDonald, but when the attention of the regular visiting physician for nervous diseases was called to the case, the boy was pronounced to be *not* an idiot, and was sent to the hospital. This was done contrary to the protest of two of the teachers of the idiot school, which was not at that time under the jurisdiction of the Medical Board.

It is a very suspicious circumstance, to say the least, that the idiot school, whose management is now being subjected to an investigation by the Medical Board, should be the recipient of a glowing eulogium by the discerning *Herald* reporter, and appears to indicate an animus which can be located without much difficulty.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, January 15, 1880.

FORDYCE BARKER, PRESIDENT, IN THE CHAIR.

The Academy was called to order at 8.15 P.M., and the minutes of the last stated meeting were read by the Secretary, DR. H. T. HANKS. The PRESIDENT introduced Dr. Philips, ex-President of the Ohio State Medical Society, and Dr. Naechtel, of Paris, France, and invited them to seats on the platform.

DR. J. LEWIS SMITH then read a paper on

PLEURISY AND EMPYEMA IN CHILDREN, AND ITS TREATMENT.

Formerly, idiopathic pleurisy was supposed to be rare in children, but greater precision in examination, and more frequent autopsies, have enabled the profession to correct that error, and it is now known that primary pleurisy is not infrequent in young children, even in infants. In the New York Foundling Asylum there occurred, in seven consecutive months, 31 cases of bronchitis, 21 cases of pneumonia, 3 cases of tuberculosis, and 11 *cases* of *primary* pleurisy; that is, independent of extension of inflammation from the lung. Reference was then made to the diseases for which pleurisy is mistaken, such as pneumonia, intestinal irritation, remittent fever, etc., and cases were related. Reference was also made to the fact that pleurisy occurs more frequently in the wards of public institutions than in families, and during the prevalence of scarlet fever it is more common than at any other time. Of 404 consecutive patients in private practice, two had primary pleurisy, which was

regarded as about the usual proportion in family practice, except when scarlet fever prevailed.

Causes.—The most common cause is taking cold. Cachexia rendered children especially liable to contract the disease. It occurred more frequently among the city poor than among those who are in comfortable circumstances. Pleurisy is not rare in new-born infants, and the cause is not always apparent. A case of double pleurisy, without disease of the lungs, with a small quantity of pus in each pleural cavity, occurring in a child one month old, was related, and yet the cause was obscure. Pleurisy following scarlet fever is very nearly always suppurative. Pleurisy is produced by discharge of material into the pleural cavity from an opening in the lung occurring in connection with *hypostatic pneumonia*, a cause which the author of the paper had not seen mentioned by any writer upon diseases of children. The order was hypostatic congestion, or pneumonia, disintegration of lung-tissue, perforation, introduction into the pleural cavity of morbid material, suppurative pleurisy. Another cause is indolent pneumonia, circumscribed, in the posterior part of the lung, formation of abscesses not larger than a pin's head, opening and discharging into the pleural cavity, producing suppurative pleurisy. Cases were related.

Abscess in the chest-wall and opening into the pleural cavity was mentioned as another cause. Pleurisy attributable to traumatic cause rarely occurs in children.

Anatomical Characters.—They are the same which occur in inflammation of other serous surfaces. The fluid is usually in the posterior, inferior, basilar portion of the pleural cavity. In empyema, draw a line from the axilla somewhat forward and downward, and that portion of the cavity in front is occupied by compressed lung, and that posterior to it by fluid. The lung is crowded upward, inward, and forward by the pus, and that is an important point with reference to the operation of thoracentesis, which should be performed a little forward of a perpendicular line through the angle of the scapula and between the seventh and eighth or eighth and ninth ribs. Displacement of organs does not occur to the same extent as is seen in adults. In four cases, general pericarditis had been found as a complication from extension of the inflammation; and in one case localized peritonitis was developed by the same cause, affecting not only the under surface of the diaphragm, but a corresponding localized surface upon the liver.

Symptoms.—Those especially noteworthy were the following: in some cases the attack is not accompanied by the usual symptoms of pleurisy. Frequently the pain is ascribed to colic. At first the temperature may not be high, but ordinarily it soon rises to 102°, 103° F., or higher. The fever of pleurisy continues longer than that of pneumonia. The pulse continues rapid until convalescence is well established. The pain is referred to the thorax less commonly than in adults.

Physical signs in patients under three years of age: *Inspection.*—Accelerated respiration; bulging of the chest-walls not so frequent as in older children or in adults, and is hardly appreciable either by sight or measurement. That fact was explained on the supposition that atelectasis of the lung occurred to an extent sufficient to compensate for the space occupied by the fluid. *Palpation.*—The signs obtained by this relate chiefly to fremitus and displacement of the heart. *Percussion.*—Resonance as in health during the first hours of the disease; subsequently, usually between the second and fourth day, dulness corresponding with the amount of fluid in the pleural cavity. Adhesions are frequent, hence, change in position could not be made of so much avail in determining the presence and quantity of fluid as in the adult. *Auscultation.*—Absence of respiratory murmur does not occur in infants, under the same conditions, so uniformly as in adults. Respiration can, in most instances, be heard through the liquid, either coming from the same or the opposite side of the chest. Instead of absence of respiratory murmur, a distant, finely vesicular murmur is sometimes heard, probably communicated through the fluid, or it is bronchial or broncho-vesicular, produced in the bronchial tubes upon the affected side. This is especially likely to be present in children under three years of age.

Differential Diagnosis. The introduction of the hypodermic needle is the crucial test, and, even should the case be one of pneumonia, no harm would come of introducing it between the eighth and ninth ribs, a little below the angle of the scapula and slightly forward. As a rule, if pleurisy is present, fluid can be so removed and its character ascertained.

Treatment.—The objects are to reduce the inflammation and diminish the exudation. Loss of blood was injurious in secondary pleurisy, and also when the quantity of exudation was large. It was adapted only to primary pleurisy at the very beginning, rarely under the age of six months, and by leeches only. The leeches were advantageously followed by a poultice composed of one part of mustard and sixteen of flaxseed, to be covered with oil-silk and changed once or twice in twenty-four hours. Blistering was not advisable in the early part of the disease, for at that time it increased rather than diminished the inflammation. Cold applications were not advised. In the first stage a cardiac sedative usually was of service, and the tincture of aconite root was suggested; quinine in sufficient doses to depress the fever; digitalis to control the rapid action of the heart. Opiates were regarded useful in the first stage of the disease. A favorite prescription contained Squibb's fluid Dover's powder, tincture of aconite root, and balsam of tolu. When the fluid is pus, operative measures for its removal are indicated; if sero-fibrinous, no operative interference, perhaps. Hydragogue cathartics, as a rule, are depressing. He had not known marked benefit to follow the use of sudorifics. He had no personal experience in the use of jaborandi, and did not care to be the one to test its efficacy. Acetate of potash and iodide of potassium were recommended as diuretics. Digitalis was regarded as especially beneficial when the pleurisy is complicated by pericarditis, its action being that of a cardiac tonic rather than a diuretic. Acetate of potash half an ounce, infusion of digitalis six ounces, and a teaspoonful every three hours for a child under five years of age. The diet should contain only a moderate amount of liquid. Syrup of the iodide of iron could be used in place of iodide of potassium when the patient is cachectic, and compound iodine ointment may be of service. If the appetite is good, and symptoms not urgent, not much active treatment is required.

Thoracentesis.—The admission of air in moderate quantity into the pleural cavity produces no injurious consequences if the pleural surface is in a healthy condition. If air is admitted into a cavity containing sero-purulent fluid, putrefactive changes will follow; its admission consequently does harm. Dr. Smith then referred to the indications for thora-

centesis, as given by Dr. Bowditch of Boston, and by the late Dr. Anstie in Reynolds's System of Medicine. To these he added his own rules, which were to always use a trocar and aspirator combined. The liquid should not be removed through a canula having a sharp point, for the point will injure the lung. A puncture five-eighths of an inch deep is sufficient to penetrate the purulent cavity, when the trocar can be detached, the aspirator attached to the canula and the fluid removed. When the liquid is sero-fibrinous a single aspiration is usually sufficient. In empyema a fistulous opening should be established. The method was to remove the liquid, wash out the pleural cavity with carbolized water, temperature 100° F., strength 1–100, and then introduce threads by means of an instrument he has devised for that purpose, and allow them to remain. The washing out to be done *but once*, unless the pus be fœtid, when the cavity should be washed out every second day. By frequent washing out of the pleural cavity we interfere with Nature's method of effecting a cure.

The paper being before the Academy, Dr. F. P. Kinnicutt referred to points in the symptomatology of pleurisy. The friction-sound, as heard in children, very rarely has the harsh, grating character which it has in adults, but it is rather a fine crepitation, differing only from that of pneumonia in being less firm and more superficial. The pain in the abdomen, he thought, could be referred to an affection of the intercostal nerves; the pain being felt at their terminal extremities, hence referred to the abdomen low down.

Dr. A. C. Post thought that it was highly desirable in purulent collections in the pleural cavity to make a free incision with scalpel or bistoury, rather than attempt removal of the liquid by means of the aspirator needle or trocar. In purulent collections there is frequently great viscidity of the fluid, so that it cannot be drawn very perfectly through the largest needle. He had known of cases in which, from a free incision allowing the cavity to empty itself as fast as the pus is formed, the most marked relief had followed when the relief following drainage through a smaller opening had been imperfect. In children it is especially desirable that a free incision should be made, so that none of the purulent matter is retained in the pleural cavity.

Dr. Beverley Robinson agreed with Dr. Post regarding the radical operation. He also agreed with Dr. Smith that too frequent washing out of the plenral cavity is not advantageous. He had seen fatal terminations take place while injections were being made into the chest. He always used the thoracentesis needle as soon as there was evidence of fluid in the pleural cavity, and had never seen any unfavorable results follow its use. He doubted whether it is a serious evil even to puncture the lung, if the needle is small. He had left the needle in the chest in two cases, without unhappy consequences. He used medicinal treatment only as an aid to aspiration.

Dr. E. H. M. Sell spoke of good results obtained by free incision in empyema in Paris, in 1877. He believed the iodine treatment efficacious. Thoracentesis was well when medicinal treatment failed. Chalybeate tonics and digitalis were serviceable, and he had also seen good results follow the use of asclepias and gelsemium.

PRESENTATION TO THE ACADEMY.

The President—It will be remembered that on the opening of this Library Hall, when the programme of the evening had concluded, all present were invited to go below and partake of the "loving-cup." A regret was expressed that the loving-cup, of itself, was only glass, instead of such material as is generally made use of, in such ceremonials, in England. Soon after the report of the meeting was published in our city newspapers, it will also be remembered that the Academy received, through its President, a letter containing a check for $200 for its library, from a lady whose earnestness in every good word and work, and whose interest in and sympathy with all

the benevolent labors of our profession is universally known and acknowledged in this city. It is not merely for the sake of saving my voice, but also for the purpose of doing better justice in its reading, that I now ask Dr. Thomas to read this letter, which I have just received for the Academy.

Dr. Thomas then read the following letter:

Dear Dr. Barker:—I beg your acceptance, as President of the New York Academy of Medicine, of the accompanying cup, which, if you will oblige me by using as a "*Loving-Cup*" on the occasion of your next anniversary meeting, will owe all of its grace to words spoken by yourself in the early Autumn. It comes to you as a messenger of a true sympathy in the purposes of the Society, and it is engraved with words that, I believe, touch equally your *ideals* for its work and your *personal* feelings toward all of your associates; and I shall feel a sincere gratification if its occasional use—in agree-

ment with such kindly sentiments may procure a moment's pleasure to those whose days hold, necessarily, so large a measure of care and sacrifice.

Always, my dear Doctor, with faithful regard,
Your friend,
AUGUSTA ASTOR.

THE PRESIDENT—The cup, to which reference is made in the letter just read by Dr. Thomas, I now shall bring before you. Its beauty of design, conceived by the donor of the gift, and its perfection of artistic finish, are worthy of the graceful language in which it is offered to us. I am now most happy to offer it for your inspection. Its surface is ornamented by the acacia, symbol of friendship and love. On the front is the seal of the Academy, its motto, and the head of Hippocrates. Above, is the name of the President and the date of his election, with spaces left for the names of his successors; while on its upper part is engraved a sentiment in which I am sure that all of us will most heartily sympathize. When we adjourn, I shall ask you all to make use of this "loving-cup" in the room below. It has already been consecrated by the lips of woman, the aroma of which, let us hope, will ever remain to perpetuate the beautiful sentiment engraved upon it: "May peace and love be multiplied unto us."

DR. LEWIS A. SAYRE—Mr. President: It seems to me that this is an unusual occasion, and that it deserves more than ordinary attention. I think we should not let this presentation pass without proper recognition. When I look back to my first visit to New York, there seems to be such a contrast between the feeling of the people toward the medical profession at that time, and that exhibited by the evidence shown to us to-night by this token of respect, that it is little less than marvellous. I recall very well, coming, as I did in 1839, from Kentucky, asking some half a dozen men—respectable-looking men of New York—where the Medical College was, and none of them could tell where it was, and sent me down to Barclay Street, not knowing that it had been removed to Crosby Street some three years. That was pretty much all the interest they felt in those days in the study of medicine. My old friend here to the left, from Boston, was just saying to me that in Boston it was customary for wealthy persons to give to colleges, to donate to public institutions, to endow professorships, and that it was the case in small villages for the people to interest themselves in professional behalf, and that they directed their attention to it; but in New York the great commercial interests attract so much attention that the profession of medicine is lost sight of. Generous the people are in their distributions to hospitals, all of which is very well, but this is the first instance where a person, just from a hint that our loving-cup was not stronger than glass, has entered and supplied the want, and I regard it as an indication that the wealthy citizens of New York are becoming interested in our profession. I look upon it as an era, as an opening up to the hearts of the wealthy citizens of this great emporium, and I believe that all we have to do is to make our wants known to the wealthy and cultivated people of this city, and we can command what we wish. I beg leave to offer the following resolutions:

Whereas, Mrs. John Jacob Astor has kindly presented to the New York Academy of Medicine this magnificent "Loving-cup," as an evidence of love and respect for the profession and of her regard for the President of the Academy; therefore,

Be it resolved, That the New York Academy of Medicine tender to the donor an unanimous vote of thanks for her generous gift, which will be preserved by its members as a perpetual memorial of her appreciation of the profession.

Resolved, That a copy of this preamble and resolutions be engrossed, signed by the President and Secretary, and transmitted to Mrs. John Jacob Astor.

DR. T. GAILLARD THOMAS—I second most cordially, Mr. President, the resolutions just offered by Dr. Sayre. Let us recognize with pleasure a new era in the closer accord between medicine and the community in which we live, as evidenced by this graceful and generous gift. It is the olive-branch held out to us by an appreciative public, and it comes to us through the hand of a noble woman. As Dr. Sayre has said, it marks a new period in the history of our guild in New York. Let us hope that it will prove an earnest of the future, and let us mark our appreciation of it by an unanimous vote of acknowledgment.

The resolutions were unanimously adopted, and, after the transaction of unfinished business, the Academy adjourned to partake of the loving-cup.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Jan. 14, 1880.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

EXTRAVASATION OF URINE.

DR. BRIDDON presented several specimens, the histories of which were furnished by Dr. Wetmore, House Surgeon to the Presbyterian Hospital. The first of these was the genito-urinary apparatus of a male patient, aged fifty-six years, who was admitted to the Presbyterian Hospital December 22d, suffering from the effects of extravasation of urine.

Eight days before he had been in perfect health. No history of gonorrhœa or injury. At that time he was taken with a severe chill, followed by fever, headache, and retention of urine, which was relieved by a flexible catheter. Four days after he had another severe chill, with fever and retention of urine. Next morning noticed swelling of penis and scrotum; in an short time the swelling extended up on to the abdomen. Catheter passed eight hours after the extravasation began, by his family physician, and some water drawn off. This was repeated three times a day, and water drawn each time.

On admission, three days after extravasation, the penis, scrotum, and perineum, were enormously swollen, the swelling extending as high as the umbilicus. Temperature 99½; pulse, 100; respiration, 40; pain in penis and scrotum. Patient etherized, and two incisions made, one on each side above Poupart's ligament, when considerable fluid with a urinous odor escaped. The superficial fascia was gangrenous. The prepuce and integument of the dorsum of the penis were divided, giving exit to more fluid. A No. 16 silver prostatic catheter was passed with ease, and ℥ x. of urine drawn off. Examination of the rectum showed two openings on the anterior wall, into which the finger could be passed. Prostate seemed normal. Very free incision was made in the median line of the perineum and scrotum; the urethra, for two inches anterior to the prostate, was opened; all the tissues beneath the deep layer of the perineal fascia were in a condition of gangrene; in half an hour patient had a severe

chill; temperature only 99½, and was free from pain. Patient took plenty of nourishment.

Dec. 23d.—Pulse, 130 per minute; temperature, 100°, respirations, 50; complains of dyspnœa. The gangrene has extended so that there is a spot about as large as the palm of the hand above the incision on the abdomen, which is perfectly dead. Diarrhœa commenced at 11 A.M., and he had eight passages up to 2 P.M., when it stopped. No vomiting; tongue dry, and coated brown; pulse feeble and rapid; sweating; headache; pupils contracted; no delirium; patient perfectly rational and conscious. Died in this condition at 8.15 P.M.

Autopsy was made twenty hours after death by Dr. W. H. Porter, Curator to the hospital. Around the incisions in the perineum the areolar tissue was gangrenous. The pericardial sac contained a drachm of straw-colored fluid. Heart weighed eleven ounces. Aortic and pulmonary valves slightly thickened. Atheromatous degeneration of aorta. Lungs œdematous, slightly adherent, and contained in their apices pigmented nodules the size of a hen's egg. Liver slightly enlarged and fatty. Brain-vessels of meninges distended. Dura mater adherent, arachnoid thickened.

The genito-urinary organs were removed *en masse*, and when dissected presented the following appearances:

The external incision in the perineum was four and one-half inches long. After removing the integument from the penis and adjacent parts, the areolar tissue was found gangrenous, the gangrene being most marked on the left side, extending down the spermatic cord nearly to the testicle. On the dorsum and left lateral portion of the penis there was a large patch of lymph, surrounded by gangrenous tissue.

The tunica vaginalis on both sides contained considerable clear, straw-colored serous fluid. The penis was laid open along the median line on the dorsal surface; the os pubis cut through, and the bladder opened on its anterior surface. The following conditions were found from meatus to kidney: The anterior three and three-fourth inches of the spongy portion of the urethra were normal. From this normal part to the prostatic portion the first inch was ulcerated and almost gangrenous. The balance of the urethra back to the prostatic portion had been entirely destroyed by the gangrene. The incision into the urethra was two inches long, and extended from the prostatic portion through the gangrenous part to the ulcerated portion. Prostatic portion of the urethra nearly normal; prostate normal. The bladder contained about four ounces of decomposed urine. On the mucous surface of the bladder there was some twenty bright red projecting points, which looked like loops of vessels. The ureters and pelvis of the kidneys were normal, but the latter were small and very white in color, although the vessels were well distended with blood. Microscopically, they were found in an advanced stage of chronic diffuse degeneration, and the tubes devoid of epithelium, and in many places filled with hyaline casts.

The rectum was opened on its posterior surface. In the first two and a half inches above the anal orifice six ulcerated points existed, which had fistulous openings running from them and terminating in blind extremities. There was no communication between these ulcers, and the bladder and urethra. One of these ulcerated points was quite extensive, and had destroyed all the coats of the rectum, and looked as if it might have formed as a small abscess in the coats of the rectum. Above this point the remaining portion of the rectum was more or less ulcerated and indurated, and the lumen considerably diminished at points. The point in the urethra where the extravasation of urine first occurred could not be determined, owing to the great destruction of the membranous and lower spongy portion of the urethra by the gangrenous process.

STRANGULATED FEMORAL HERNIA. REMOVAL OF SMALL PORTION OF OMENTUM.

A second specimen, presented by Dr. Briddon, consisted of a portion of omentum, removed in the operation for strangulated hernia. The patient, a female, aged thirty-three years, was admitted to the Presbyterian Hospital, December 31st, suffering from strangulated femoral hernia.

About one year ago patient fell from a sofa, and on the following morning noticed a lump just under Poupart's ligament, on the right side. It was very painful and tender to the touch. During several months patient suffered much from colicky pain in the abdomen, but had no vomiting. Bowels were regular. Began wearing a truss five months ago. According to her statement the hernia has been down from the first, never going back. December 30th the pain at seat of hernia became so severe that she consulted Dr. Briddon. She had vomited once December 28th; bowels constipated; complained of flatus. On admission, December 31st, one P.M., patient had no acute symptoms of strangulation, only the ones mentioned above. Three P.M., operation under ether and with all antiseptic precautions; an incision two inches long was made through the integument on the right side, the centre of which was about an inch outside the spine of the pubes. On dividing the cribriform fascia in the lower end of the wound, a rather free hemorrhage occurred from either the saphenous vein or one of its tributaries; this was checked at once by the application of a gut ligature. After this it was difficult to distinguish the different tunics, the fascia propria was thickened, as in most irreducible herniæ, or in those small protrusions that have long been covered with a truss, or it was so incorporated with the serous lining as to be almost inseparable. An attempt to reduce without opening the sac, by dividing such fibrous structures as appeared to prevent return, demonstrated that the stricture was in the neck of the sac itself, and that structure was divided, giving exit to one drachm and a half of clear, inodorless serum and displaying a small portion of omentum. Sac and contents were not larger than a small hickory-nut: the omentum was tied off with a strong catgut, and placed within the inner opening of the canal. The sac, which was separated from its investments, was also tied and cut off; a drainage tube was introduced; the wound was closed and protected with the usual antiseptic dressings. It is now fourteen days since the operation, the wound is nearly healed, and the patient has not had a bad symptom.

CARIES OF TARSUS—GOUGING FOLLOWED BY AMPUTATION THROUGH ANKLE.

Dr. Briddon presented a specimen of caries of tarsus, for which Symes's amputation had been performed. The following history of the case, by Dr. Wetmore, house-surgeon to the hospital, was presented:

Mary A. McGoff, æt. 34, married; housewife. Admitted to Presbyterian Hospital September 1st. Father died of cancer; mother died in childbirth;

has five sisters living and in good health, patient had had erysipelas. About one year ago last June she had pain in the right foot when walking; no history of injury. This increased until February, when she was unable to walk at all. In May four openings appeared, from which there was a free discharge of pus.

On admission, right foot very much swollen and red; four sinuses; deepest, one and a half inches, three on the inside; one on the outside. Bare bone could be felt; severe pain. September 11th an incision was made over the outer and inner surface of the foot, and portions of the internal cuneiform and cuboid found to be carious. All of this was removed with a gouge. Drainage tube passed through the wound, the tendo Achillis divided, and the foot put up in plaster. Wound afterward syringed with carbolic acid, 1-40. For a time patient did very well, and then more carious bone was found; temperature remained constantly up; swelling and tenderness around the wound increased, and the patient's general condition grew worse. A consultation was called for October 20th. Some recommended amputation; some injection with Villath's solution, which latter was done while the patient was under ether. This was continued for a month, at first seemingly doing good.

At the end of November it was evident that the disease was spreading and that the patient's general condition was growing worse every day.

Service of Dr. Briddon, December 1st.

Patient has a great deal of pain in the foot, which is swollen, tender, red, and hot. Her temperature is constantly above normal, 100 in the morning, 102–104° in the evening; diarrhœa, night-sweats, loss of appetite, cough, with slight dulness of apex of right lung, few crepitant râles, emaciation. Herpes zoster over back and nates.

5 Dec. 20th.—Symes's amputation was performed antiseptically by Dr. Briddon. The tuberosity of the os calcis, instead of being enucleated from below upward, was separated from above downward. The articular cartilage on the lower surface of tibia was covered with organized false membrane, which was scraped off and the cartilages found to be healthy. Dressings changed on second day.

Dec. 26th.—Everything looking well. Drainage-tube removed. Patient is in much better condition. Appetite improved, temperature lower, cough stopped, night-sweats less.

Examination of the diseased bones by Dr. J. Aycrigg Hegeman.

The foot was enlarged, thickened and œdematous. The thickening was especially marked over the articulation between the internal cuneiform and metatarsal bones of the great toe. Large sinuses, surrounded by exuberant granulations, leading down to bare bone, existed on both sides of the foot.

That on the inner side, as the dissection proved, led down to the articulation between the astragalus and scaphoid. That on the external side led down to the articulation between the cuboid and os calcis. The bones were cleaned by careful dissection and the following condition was found to obtain: The astragalus was normal, with the exception of the head, and the anterior facet on the inferior surface, on which the calcaneo-scaphoid ligament rests, both of which were carious and the former of which was entirely destroyed. The os calcis—the sustentaculum tali—was carious and presented a worm-eaten appearance. The facet for articulation with the cuboid was entirely destroyed by the carious process. The remainder of the bone appeared to be normal. All the articular facets of the scaphoid were entirely destroyed and at various points small osteophytes projected from the surface of the bone. Between the internal cuneiform and the first metatarsal bone, nature had stopped the carious process, by a firm bony anchylosis, large osteophytes growing from both bones, which in some instances united with each other. The other articular surfaces of the bone internal cuneiform—were roughened and destroyed. All the articular facets of the middle cuneiform were roughened and destroyed, the articular end of the second metatarsal bone being involved in the process. There seemed to be an attempt at anchylosis between the two bones. There were numerous osteophytes. The facet of the external cuneiform, for articulation with the third metatarsal, was normal, all the other articular surfaces were destroyed. The bone was covered with numerous osteophytes. The articulation between the cuboid and fourth and fifth metatarsal bones was normal, all the other articular surfaces of the cuboid were destroyed and the bone covered with osteophytes. The metatarsal bones were not involved in the process, with the exception, as stated above, of the first and second. The diseased bone was stripped of its periosteum, and presented a honeycombed appearance. It was brittle, easily broken, and looked dark and dirty.

Strumous Arthritis—Resection of Knee-Joint.

A fourth specimen by Dr. Briddon was one with strumous arthritis, resection of knee-joint.

Frank Ross, æt. 5, New York; admitted to Presbyterian Hospital, service of Dr. Briddon, July, 1878. Mother died of phthisis. Father living and healthy. The child had always been delicate. When admitted he had chronic arthritis. The joint was swollen, but there were no signs of acute inflammation. Child's general condition was very poor. Expectant treatment was tried until February, when the joint was aspirated by Dr. Post, and about eight ounces of fluid drawn. The joint was then hyper-distended with carbolic acid, 1-40. This treatment was followed by repeated blistering. In June, 1879, the knee was aspirated again. Then an incision was made just above the knee, and about four ounces cheesy pus were let out. No communication with the joint. After this there were signs of acute inflammation for three or four weeks, the child's temperature ranging as high as 104°; the knee was red, swollen, tender, and hot. In July, a brace was applied to immobilize the leg and to straighten it.

July 23d.—Several ounces of creamy pus, with some fibrinous clots, were removed from the vicinity of the knee by the hypodermic syringe, and afterward by a free incision. A drainage-tube was inserted, the old brace removed, and lint and bandage applied.

August 9th.—The cotton was removed to-day, as there was a foul odor. About four ounces of badly-smelling pus came away. The child seems to be failing in health.

August 16th.—A movable brace was applied. There is but little discharge of pus from the opening. General health is somewhat better.

August 29th.—Child very much improved. Appetite good and gaining in weight. Cotton and movable brace removed every few days and wound washed with acidi carbolici, 1-40.

September 15th.—Brace still on child's leg. The incisions are about healed. There is but little discharge.

September 30th.—Child's general condition is improving.

October 4th.—The brace was removed to-day and a new dressing applied. There was very little discharge and the sinus seems entirely healed.

October 11th.—He hobbles around on crutches and complains of no pain. The leg was straightened a little this morning.

October 15th.—Leg was dressed to-day. There was very little discharge.

October 25th.—He is quite restless at night, crying and moaning a great deal. Has pain in his head and head is drawn down toward left shoulder. No rise of temperature.

November 1st.—General condition a little better. He sleeps better. Given ol. morrhuæ.

November 20th.—Dressing changed to-day and brace reapplied. But little discharge.

December 2d.—A probe introduced through one of the sinuses on the inside of the knee passes into the joint and comes in contact with carious bone.

December 4th.—He complains of pain in the knee, especially at night. The head is drawn to the left side, and he lies in bed with his head buried in the pillow. Temperature 101¾ at night; normal in the morning. He cries continually in the night and refers the pain to the knee. Pressure of the head downward upon the spinal column increases the pain. Ordered potass. bromid., gr. v., every two hours during the night till he is quiet.

December 10th.—The pain in the head is better and the neck is not so stiff. Sleeps well. Very little discharge from the sinuses.

December 20th.—His general condition better than it has been for months. Given ferrum dialysatum ℥. x. t. i. d. with ʒ ij. ol. morrhuæ.

December 20th.—Examination of urine: sp. gr. 1016; color, light amber; sediment, white and flocculent, microscopically, lime oxalate, urate of soda; bladder epithelia and granular casts.

Operation.—December 27, 1879, by Dr. Briddon. Patient under the influence of ether, the spray, and associated antiseptic precautions. An incision was carried horizontally across the patella from the anterior border of the epicondyle on one side to the anterior border of the epicondyle on the other side. The joint was opened on either side of the patella; the bone was easily divided with the knife, and separated from its connections with the underlying articular facet of the femur. The lower half of the patella was then drawn downward and secured out of the way, while the lateral and crucial ligaments were divided, and the end of the femur resected. At this step of the operation, great care was taken to avoid removing more than a very thin slice of the epiphysis, and the section did not in any part approach or trench upon the junction of that process with the shaft. The head of the tibia was treated in the same manner, and by the removal of some thin additional sections, the bones were brought into accurate apposition, and maintained so by strong sutures of carbolized catgut (E violin string). The edges of the patella were then approximated, and also united by gut sutures. A drainage-tube was introduced through openings made behind the extremity of each lateral incision. The wound was closed with gut sutures and dressed antiseptically. The leg and thigh were covered with flannel rollers, and most thoroughly immobilized with lateral and posterior hoop-iron splints, maintained in position with plaster bandages covering foot, leg, and thigh, but leaving knee-joint open for inspection and dressing.

The child did not have a single bad symptom after the operation. On the following morning visit he was found sitting up in bed playing with his toys, as unconcernedly as if nothing had happened. The wound healed by first intention, and to-day, seventeen days after the operation, his general condition is very much improved. Condition of parts removed in operation: the cartilage on the internal condyle was carious, and the cancellous structure was in similar condition. Synovial membrane there was none; inter-articular cartilages gone, and the cavity replaced by fibrous tissue.

TWO CASES OF MELANO-SARCOMA OF THE CILIARY BODY AND CHOROID.

Dr. H. Knapp presented two specimens of intra-ocular sarcoma with the following remarks:

The first specimen was taken from a man, æt. 40, who consulted me on 4th August, 1879. He is an excellent painter, exceedingly industrious, and almost the only one in this city who paints on gold ground, which, he says, is very trying to the eye. He had worked a great deal at night by gaslight, and for two months he had seen, with his right eye, straight lines crooked. Further, he had suffered from photopsia and micropsia. On examination, I found extensive detachment of the retina. His other eye was healthy, emmetropic, and had perfect vision. Six weeks later he complained of fatigue, seeing colors and sparks and muscæ volitantes in the good eye. Though I could not find any abnormity, I treated him antiphlogistically for five weeks. The symptoms of irritation disappeared, and he resumed his work as before. In December, 1879, he came to me again, stating that his blind eye had given him great pain for two days. I found marked episcleral injection, chemosis, slight haziness of the cornea, discoloration of the iris, and the tension of the globe increased—in short, an attack of acute glaucoma. At once I examined the interior of the eye, and found in the lower outer part, immediately behind the lens, a brownish intumescence the size of a small pea. The diagnosis of a melano-sarcoma was at once evident. I may state here that from the beginning I looked for an intraocular tumor, but could detect no signs of it. The eye was free from irritation, and its tension rather diminished.

The globe was removed as soon as the diagnosis was made. A melano-sarcoma occupies the ciliary region and adjacent choroid. The retina is completely detached in shape of a funnel, but the other membranes are in position. The growth started from the ciliary region, and that was the reason that it was no sooner recognizable. It has the size of a hazel-nut, and must have had a considerable size when the retina became detached. Being at the periphery of the eye, it produced no great visual disturbance until the detachment of the retina took place. Microscopically, it presents a fine specimen of pigmented spindle-celled sarcoma.

The other specimen was taken from a healthy looking woman, æt. 30, who had been confined three weeks before she consulted me on Nov. 17, 1879. Two months previously she had accidentally noticed that her left eye was blind. When I saw her I found tortuous veins running over the sclerotic, the tension of the globe increased, the anterior chamber shallow, and slight perception only in the lower part of the visual field. The anterior outer lower part of the vitreous chamber was occupied by a brownish tumor. The retina was almost totally detached. The globe was removed. The tumor proved to be a melanotic spindle-celled sarcoma in the ciliary body and adjacent choroid, the size of a cherry.

Though it is very difficult to detect, at an early stage, neuralgias starting from the ciliary body, these cases, especially the first, very forcibly reminded me again of the necessity to carefully examine the hidden ciliary region in cases of ocular irritation, the cause of which is not seen with the ophthalmoscope, even when detachment of the retina has occurred.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, January 26, 1880.

DR. A. E. M. PURDY, PRESIDENT, IN THE CHAIR.

THE SOCIETY was called to order at 8 P.M. and the minutes of the previous stated meeting were read by the Assistant Secretary, DR. W. M. CARPENTER.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

The Comitia Minora reported, in relation to the matter of assessments by the State Medical Society for the publication of its Transactions, that, "after careful consideration, it finds no authority in the statutes for such taxation, and that the tax for publishing its Transactions is imposed illegally. That while it disclaims all sentiments of disloyalty to the State Society, it believes that the interests of the members of the Society of this county, and of the profession throughout the State, require that an earnest protest should be made against all assumptions of authority by the State Society that do not find their warrant in the statutes relating to the medical societies of this State."

The report was laid upon the table.

The Society granted Mr. Isaac F. Wood, the Librarian of the American Numismatic and Archæological Society, permission to have struck in bronze and white metal a few impressions of the County Society medal, for which he pays the die-sinker the cost, and to be placed in his own collection and in the cabinets of several societies.

The following clause relating to the Society's prize medal was adopted: "The Society reserves to itself the right to require that the essay for which a prize is awarded, shall be read before the Society previous to being placed at the disposal of its author."

The President was authorized, on recommendation of the Comitia Minora, to take such steps as are necessary to protect the interests of the practice of physic and surgery in the county of New York, the subject being before the Legislature in the form of a bill.

DELEGATES TO THE STATE MEDICAL SOCIETY.

On motion, the regular order of business was suspended, and the Society proceeded to the election of *five* delegates to the State Medical Society, to serve for the unexpired term of three years. The following gentlemen were elected: Drs. J. S. Warren, V. P. Gibney, A. McLane Hamilton, A. V. B. Lockrow, and Daniel Lewis.

PUERPERAL MALARIAL FEVER.

DR. FORDYCE BARKER then read a paper on the above subject, of which the following is an abstract: Although the title of the paper has not yet been added to the nomenclature of diseases in medical literature, it is so descriptivo of the etiology, pathology, and clinical phenomena of a class of affections which of late years had been so frequently met with in puerperal women in this city and its vicinity, that he had employed it. The author of the paper then presented the character of the disease, its pathology, its differential diagnosis, and its treatment. By the kindness of medical gentlemen who had furnished him with complete notes of cases which he had seen with them in consultation, and from those in his own private practice, he had the records of seventeen cases, and of these he gave a summary of the aggregate results and the conclusions to which he had arrived.

Puerperal malarial fever might make its invasion at any period following parturition, until the physiological changes which constitute puerperal convalescence were completed. The earliest development occurred in less than twenty-four hours after entirely normal parturition. The history of a case which occurred in the practice of Dr. Howard Pinkney was then given. The latest period of invasion was in one of his own patients, who had a normal labor in every respect, and her convalescence was so complete that he had begun to make weekly visits only. The details of the case were reported. The most prominent *symptoms* were chills, sometimes very slight, a temperature higher by one or two degrees, frequently, than was found in the beginning of any other puerperal disease, rapid pulse, greater prostration than was usual with other diseases during this period. After such an explosion, there was a remarkable remission on the following day, but the alarming symptoms returned after one, two, or three days, yet usually less severe. Only Typical cases, presented such a succession of phenomena. Dr. Barker was disposed to believe that in the majority of cases the patient, three or four days after the explosion, finds herself suffering a general sense of malaise, more or less of pain in the back, head, and bones, thirst, loss of appetite, insomnia; and when the disease was developed the chills were less severe, the pulse less rapid, the temperature not so high, and the remissions less marked; and he was also of the opinion that in such cases the disease was more persistent and responded less readily to treatment. In puerperal malarial fever a fall of temperature three or four degrees was always attended with a corresponding decline of other symptoms, which is not the fact in septicæmia, and the latter is rarely accompanied with pain in the head, back, and limbs. He thought that a competent and intelligent observer would not be likely to mistake the affection, when developed six or eight days after confinement, for pyæmia, even though it was developed late during the puerperal period. Puerperal fever usually appeared between the first and the third day after delivery, and very rarely after the fifth day, while the chills were not recurrent, nor were there marked remissions of the symptoms. Malarial fever may be developed during the progress of any of the local phlegmasia, or may be complicated by them. In five cases, secondary hemorrhage occurred after the twelfth day, apparently as the result of the malarial fever. One of these has already been reported by Dr. H. T. Hanks. In one case, three days after the hemorrhage, purpura was developed, and there was some oozing of blood from the nasal and buccal mucous membranes. In four of the cases seen in consultation the chief reason why he was called was that the patient was supposed to have puerperal mania. The details of a case seen in consultation with Dr. Barker, of Jamaica, L. I., were then given. But one of the seventeen cases had terminated fatally,

and that was in the practice of Dr. Wm. H. Hall. The patient died on the forty-seventh day after confinement. The history of the case was given. The author of the paper did not dwell upon the treatment, for the reason that the treatment of malarial fever is so well settled, and every physician of intelligence and sound practical sense appreciates the necessity for and the kind of auxiliary measures which the symptoms peculiar to each case may require. He had found Warburg's tincture much more effective and speedy in producing the results desired than the largest doses of quinia. His method was to give it in half-ounce doses every four hours until the fever had entirely abated, and then continuing it in gradually diminishing doses until convalescence is perfectly established. On the least threatening of a recurrence a full dose should at once be administered. The tolerance of quinia in these cases is very remarkable. One patient received 80 grains hypodermically within twenty-four hours, and yet no symptom of cinchonism was produced. When given by the mouth it is usually combined with bromide of potassium, to prevent or modify the cinchonism.

On motion, the paper was accepted, and being before the Society, Dr. Wm. H. Hall referred to a few points which the author of the paper had omitted to mention in the history of the case which he invited him to visit in consultation. The tolerance of quinia was most remarkable, no symptoms of cinchonism being produced while the patient was taking 150 grains in 24 hours. Another point in the treatment was the use of nitrite of amyl during the excessive prostration following the rigors. It perhaps did not cut short the chill, but the patient's powers of endurance seemed to be increased by it, and she was carried over the period of prostration much more satisfactorily than by any other means employed.

Dr. H. T. Hanks remarked, with regard to his case mentioned by Dr. Barker, that it was one in which he was much interested, because of some marked symptoms which appeared soon after delivery. At the time of delivery, the hemorrhage was considerably more copious than normal. After delivery her pulse remained at 95, and the doctor went away fearing the sudden occurrence of postpartum hemorrhage. She took full and repeated doses of quinine for five days, and at the end of the seventh day after confinement the temperature went down, and she did very well until the sixteenth day, when she was suddenly taken with uterine hemorrhage, which was profuse and carried her into an extreme exsanguinated condition. No cause for the hemorrhage could be found, and he could account for its occurrence only on the ground of the influence produced by a fever which could be subdued by no remedy except quinine. Dr. Hanks also referred to a case which he saw last June. The patient had lived in malarious districts south; had had well-marked malarial fever, and at the end of the fourth day after her confinement, labor being normal, secretion of milk good, lochial discharge proper, was taken with a chill. Large and frequent doses of quinine were at once resorted to, in combination with bromide of potassium. On the second day a second chill occurred, and on the fourth day a chill occurred, but it was much less severe than the first, the quinine was crowded, and her recovery was satisfactory.

Dr. S. S. Jones remarked that it had been his fortune to see a great deal of malarial fever in puerperal women within the last two or three years, and some of the cases had been exceedingly persistent and difficult to treat. There was one feature not noticed by the author of the paper, and that was the fact that septicæmia can occur after the onset of malarial fever in the puerperal condition, and that it may be the occasion of elevation of temperature without remission for several days, thus accounting for the fact that quinine does not produce its effect as quick as it usually does in pure malarial fever. It had been his habit to give, living as he did in a malarious district, a dose of quinine on the day following the confinement. In those cases in which fever does not subside after the exhibition of a full dose of quinine, it had been his habit to cleanse the uterine cavity, and in one or two cases he thought he had almost demonstrated that the cleansing of the uterine cavity was the turning-point in saving the patient's life. A case was related. Twenty grains of quinine were given after confinement, and ten grains daily until the sixth day. The patient was doing well, and the quinine was omitted. On the seventh day a violent chill came on, the temperature rose to 104° F., and in spite of large doses of quinine—45 grains in 12 hours—and thorough cinchonism, the fever and chills continued for three days. The cavity of the uterus was then cleansed by means of a probe and cotton, and the next morning, without the administration of quinine, the temperature was 103° F.; twelve hours afterward 102 F. The uterine cavity was cleansed three times, and the patient made a good recovery. The quinine was continued in the treatment, but not in very large quantity.

In a case of placenta prævia, the temperature, after delivery, rose to 104° F. It yielded to quinine, but the elevation returned, and symptoms of septicæmia followed. The case was treated by cleansing the uterine cavity, in addition to the use of quinine. The point to which he wished to direct especial attention was that when the elevation of temperature persisted in spite of the use of quinine, although there may be no tenderness of the abdomen, and many of the ordinary symptoms of septicæmia may be wanting, we should cleanse the uterine cavity, and not take it for granted that it is not a case of septicæmia.

Dr. Wm. T. Lusk remarked that he had not had any personal experience in cases corresponding to the severer form of malarial manifestation in puerperal women, described by Dr. Barker; yet ever since Dr. Barnes read his paper before the American Gynæcological Society, drawing attention to the fact that women living in a malarious region were subject to severe attacks of malarial fever immediately after confinement, his attention had been turned in that direction, and he had watched such cases with a great deal of interest. Within the last three months he had had three cases of the milder manifestations of malarial poisoning after confinement; chill, high fever, profuse perspiration, and all yielded readily to quinine. He regretted that post-mortem data had not been obtained regarding the severer forms. He thought that in some of the cases described by Dr. Barker septic symptoms were superadded, and aided in making them exceptionally severe. In the Maternity Hospital, when the report was made by the House Staff that some of the women had severe chills and high fever, followed by profuse perspiration, and that yielded readily to quinine, he always knew it was only the forerunner of something more serious, and therefore a warning. If the women were not removed, peritonitis and cellulitis began to appear in other cases; and if still the warning was not

he had, there came an outbreak of puerperal fever. He could not but think that, at the bottom of the severe cases at least, there was some other poison than malaria, differing only in intensity, perhaps in the manner in which it enters the system, rather than in the quality and character of the poison itself, and capable of producing puerperal fever. He thought we should be on the alert in making a distinction between this form of poison and that which produces true malarial puerperal fever.

Dr. Rankin suggested that it was not convenient to obtain post-mortem data unless patients die. Only one of the seventeen cases he had seen had terminated fatally, and in that one the question of septicæmia was thoroughly discussed by Dr Hall, Dr. Thomas, Dr Metcalf, and himself, and all were unanimous that there was not the slightest ground for suspecting septicæmia.

Dr. Hall thought the question of septicæmia was very pertinent, the object being to draw a nice distinction between it and puerperal malarial fever. With reference to his case, the prime object in calling the consultation was to see if he had not overlooked some complication, and all were of the opinion, as he had been, that it was one of malarial origin. The case had a distinct malarial history. The injections were all vaginal.

Dr. Jones further remarked that in one of his cases there was no tenderness of the abdomen upon pressure, the patient ate ordinary food with a good relish, the secretion of milk was not entirely suppressed; but when the soft catheter was introduced into the uterus, it gave exit by the injection to some badly-smelling discharge not previously noticed, and the cleansing of the uterine cavity was followed by a fall of temperature.

Dr. Charles Milne referred to cases similar in character to those reported, and in all there was a distinct history of previous suffering from malarial fever. He advised the prophylactic use of quinine in women living in malarious districts.

Dr. A. A. Smith mentioned that in several of Dr. Barker's cases there was history of malarial disease before confinement. He also stated that it was Dr. Barker's habit to put his patients upon the use of quinine immediately after confinement, and continue it for ten days, beginning early in January and continuing until the middle of June, but not at other times in the year, unless there was some special indication for its use.

Dr. W. R. Gillette remarked that he had recognized the presence of malaria in puerperal cases, especially in the upper parts of the city, and upon Blackwell's Island at the Maternity Hospital. In that institution almost all puerperal women were placed on the use of quinine and carbolic acid, at least when he was on duty, and it had come to be an established plan of treatment. To diagnosticate between puerperal malarial fever and puerperal fever is difficult in some cases, yet he believed the differential diagnosis could be made and mainly by the facies of the patient, the character of the chills, the absence of pain, the range of the temperature and the pulse, the purity of the lochial discharge, and by the purely functional disturbance of the gastro-intestinal tract, no constipation, and no great lack of appetite. Undoubtedly there were cases in which septicæmia was engrafted upon the puerperal malarial condition. He was glad that the subject had been brought up, for he believed that the profession does not recognize as it should the influence which malaria exerts upon puerperal women.

Dr. T. A. Emmet referred to cases in which there was uterine hæmorrhage, subinvolution, cellulitis, occurring in women who had been living in malarious districts, and which could not be cured except by the use of quinine. He very frequently found enlargement of the uterus, apparently due to nothing except engorgement from obstructed portal circulation; so he could well understand how a woman, exposed to malaria previous to her confinement, would be rendered susceptible to puerperal malarial fever.

The discussion being closed, Dr. David Webster, on behalf of Dr. C. R. Agnew, read the following memorial to

THE LATE DR. EDWIN DENISON MORGAN.

"Edwin Denison Morgan, Jr., a late member of our Society, was born in 1834 at Hartford, Connecticut, and died at Suffield, in the same State, on the fifteenth of August, 1879. His remains were buried in the family burial-place, in the Cedar Hill Cemetery, Hartford, on the eighteenth of August, 1879. His life was not what would be called a very eventful one, but it had one great quality, that it grew brighter and more beneficent as it advanced, until it ripened under the benign influence of Christian faith, and closed, leaving a priceless legacy to his family that there was a well-founded hope of blessed immortality.

"Dr. Morgan got his early education at Greenwich, Connecticut. At fifteen years of age he made a voyage around the world in a sailing ship. At its close he entered the Literary Institute at Suffield, Connecticut. At nineteen years of age he married Sarah E. Archer, of that town, to whom, under God, as he was wont to say, he owed a debt of gratitude impossible to overestimate.

"From 1850 to 1862 he served as colonel on the staff of his father, then Governor of the State of New York, and saw something of that political storm which burst upon our country in the great civil war; and the bold and fearless stand which his patriotic father took to cast the entire power of our State on the side of our menaced national unity.

"It was after that time that his life became a more earnest one, and to be inspired with motives of a character which impelled him to resist more actively the inducements to luxurious ease which abundant pecuniary means so constantly presented. He determined to devote the rest of his life to the arduous pursuits of our profession. He went to Europe in 1867, returned at the end of a year, and began the study of medicine at the age of thirty-three, with vigor, zeal, enthusiasm, and pertinacity, under the direction of Austin Flint, M.D. He graduated from the Bellevue Hospital Medical College in 1871. He soon opened an office on the west side of the city, near the quarters of the poor, and from that moment until broken down in health, in the spring of 1879, devoted himself, as the writer of this very well knows, to the unpaid care of the sick poor. I take back the word unpaid. He got his reward; for, although he, with exemplary reticence and meekness, tried to hide his beneficence from the gaze and applause of his fellow-men, it was seen, we must believe, by One who never allows a cup of cold water even to be given in true charity to a sufferer without a note in His book of remembrance against the day when earth and sea shall give up their dead for the final judgment.

"After many months of distressing, deepening, and weary weakness and waiting, he passed quietly away.

"A star will mark his name in our list *here*, and

let us fondly believe a Star will be added to the Crown of that Master in heaven through whose blood he trusted to be saved. It was a noble thing for him to enter the profession as he did at thirty-three years of age, and to struggle that he might do good to others. Let us not forget, then, that one crowning, closing episode in his life.

"No mere perfume of rhetoric can embalm a human memory. It must live or die in virtue of its own intrinsic vitality. As we turn away from the new grave of a departed friend and colleague, let us ask, every man ask himself, who next, and whither? —who next, and whither?"

Dr. J. W. S. Arnold presented a communication relating to vivisection, which obtained the support of the Society and the appointment of Dr. Arnold and Dr. John C. Dalton as a committee to oppose the bill against vivisection introduced into the Legislature through the influence of Mr. Henry Bergh.

The President announced that Dr. C. R. Agnew would read a paper at the Stated Meeting in February, and the Society then adjourned.

Correspondence.

SUITS FOR MALPRACTICE.

To the Editor of The Medical Record.

Sir:—The editorial in the Record of January 17th, in which you commend Dr. C. A. Robertson, of Albany, for having resisted to a successful termination a suit for malpractice which had been brought against him, was read by me with a great deal of interest.

The doctor pursued the right course. Had he cared to do so, the suit could probably have been settled for half what it cost him to defend it; and then, encouraged thereby, others in that vicinity who had received real or fancied injuries at the hands of some physician, as well as another class who saw a promising chance for speculation, would have resorted to the courts, hoping thus either to maintain the justness of their cause, or else extort for themselves a promising amount of hush-money.

Dr. Robertson will not, for some time, at least, be again troubled with a malpractice suit.

Having had a little instructive experience in one case, I can speak upon the subject with some considerable degree of assurance. The real reason for these suits lies often, but not always, at the door of some professional brother (?). Young lawyers, and sometimes older ones, are occasionally found who are extremely fond of publicity, little caring what brings it, and they, adding encouragements to the already half-formed purposes of their clients in these cases, eventually gain for themselves unenviable notoriety; and if the case is taken in hand by the lawyer with the understanding that he is to have the lion's share of the spoils—as is usually the bargain—then the only remedy for the physician who has been so unfortunate as to be attacked is to supply his own counsel with money and instructions to fight it out—never to compromise.

My experience, briefly related, was this:

About three years ago a seedy-looking and perfectly irresponsible young man applied to me to be operated upon and treated for a chronic blennorrhœa of the lachrymal sac and stricture of the naso-lachrymal duct.

I explained to him the nature of the disease and treatment required, but gave no *positive* assurance that a perfect cure could be effected. He set forth, in a way that wrought upon my sympathies, the many troubles and privations of his early manhood, and I undertook the case upon receiving from him a small fee—a mere trifle of what is usually paid for similar services.

As had been my practice in half a hundred such cases, I divided the lower punctum and canaliculus, afterward the stricture, dilated with Bowman's probes, and, with an Agnew's syringe, washed the parts with an astringent injection.

Having devoted most of my time during the past twelve years to the practice of a specialty here, I flatter myself that the treatment was skilfully and carefully applied. The improvement was marked and rapid, and at the end of three weeks there remained but little of the former difficulty, although further treatment was required. At this time my patient suddenly announced that he was going home or away to work, and, contrary to my advice, he left, but promised to return soon to have the treatment resumed. Ten months passed away and I had not heard or seen anything of him. Imagine my surprise on being one day served with a summons and complaint, setting forth great and irreparable damages to the complainant's eye, nervous system, general health, business, etc., by reason of ignorant, unskilful, dangerous, and severe—he should have added wickedly malicious—treatment and injuries received at the hands of the defendant, and demanding a salve for his injuries in the modest sum of five thousand dollars. To strengthen his case, positive perjury as to the amount paid me was recklessly thrown in, with half a score of other misstatements.

His lawyer was an ambitious young disciple of Blackstone, with a decided *penchant* for litigation, if not for something deserving of a *blacker* name.

The suit was defended, and my attorney urged it to trial as rapidly as the obstacles thrown in the way by the opposing counsel—and they were numerous—would admit of. After nearly two years' delay, the case was called for trial and dismissed, and shortly afterward the impecunious plaintiff was taken into custody by the sheriff, on a body execution, and he now lies languishing in the county jail, where he has ample time to reflect upon the uncertain results of an appeal to the blindfolded goddess for assistance in his schemes for evolving a large amount of wealth out of the purses of the disciples of Æsculapius. This was not his first attempt in that direction.

This suit could have been compromised for a small sum; but, believing it was a duty that I owed to myself and to the profession here to defend it, I did so.

The result, getting the plaintiff into jail, was a possible sequel to such cases that few who contemplate suing a physician for malpractice are cognizant of, and the lesson from the case has virtually ended another suit which was in progress here against another physician.

Having intelligently and with a reasonable degree of skill treated their patients, physicians can and *should* defend themselves against claims for malpractice, and not buy at any price immunity from what they may look upon as unenviable notoriety. It is not very flattering to your business or vanity to have it said that you were sued for malpractice; still we have rights and should defend them, not

quickly subject to having every one with more greed than honor levying tribute upon us. The judgments which physicians form in these cases are purely mercenary ones. No honest practitioner need fear them; they are never found.

Putting a few of the class of people who bring most of the malpractice suits into places of safe-keeping, unless they promptly pay the costs if they are defeated, would have a salutary effect, not only upon others of the same sort, but also upon the aspiring attorney, who, taking the case upon speculation, hopes to squeeze or worry the doctor into paying something handsome as the cheapest and easiest, if not most honorable, way of escaping from the clutches of the human vampire. There would be less trouble if the lawyers were obliged to change places with their clients at the end of the trial.

J. K. STOCKWELL, M.D.

OSWEGO, N. Y.

OPERATIONS FOR THE YOUNGER PRACTITIONERS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Having witnessed many surgical operations in the different institutions of this city, performed by members of the profession in the highest ranks, I am compelled to ask, through the columns of your valuable paper, why these gentlemen are not as willing to afford the younger members an opportunity to operate as they were to teach us in our student days. Some of our highly esteemed professors will watch their chance to perform the smallest and simplest operation with the utmost jealousy, while we younger practitioners, to whom they have granted diplomas, must take a back seat. Many of our patients avail themselves of the services of these men simply because of their high standing and their willingness to operate for glory, and not for fees, and we are thereby deprived of a very important and remunerative portion of our practice.

The dispensary system has long been cried against, but is this not also a matter which merits a little attention in behalf of the young practitioner?

With all due respect to these veterans, who have grown gray in practice, and who have already an established reputation, I would suggest that, while they attend to the larger operations, they give us an opportunity to perform some of the minor ones; such, for instance, as strapping an ulcer or opening an abscess.

Very truly yours,

DE PROFUNDIS.

NEW YORK, January 21, 1880.

A CASE OF SUDDEN DEATH FROM THORACENTESIS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—As I see by the late journals that discussion is still kept up on this subject, the following case may not be without interest:

The patient, a young man, aged twenty-five years, was admitted into the hospital on the evening of November 10th.

I found him, on my visit next morning, sitting up in bed, and breathing with great difficulty from compression of both lungs by an enormous amount of fluid in the pleural cavities (cause, acute desquamative nephritis). The urgency of the symptoms appearing to demand immediate relief, I decided on thoracentesis.

Not forgetting the danger of a too rapid evacuation of the pleuritic fluid, I selected for the purpose the smallest needle accompanying an ordinary aspirator. Hardly had twelve ounces been drawn, however, before he complained of being faint. I immediately closed the discharge-cock, and was about to put the patient in the horizontal position, when I bethought myself that suffocation was imminent even while sitting upright. This action then appeared contraindicated, and resuscitation was attempted by the usual means, including hypodermic injections of brandy and ether, by electricity, etc., but all to no purpose; he never "came to." He had complained of no great pain from the operation. I am of the opinion that the immediate cause of death was syncope.

D. B. SIMMONS, M.D.,

Surgeon to Kerr Hospital, Tokio, Japan.

JAN. 2, 1880.

[It must be recollected that our correspondent lives in Japan, which accounts for his letter appearing a little late. But we shall always be glad to hear from him at any time.—ED.]

THE CHORDA TYMPANI NERVE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—It is a source of very great gratification to me that my observations upon the chorda tympani nerve have been confirmed in their most important part, by so conscientious and thorough an investigator as Dr. Spitzka. It was not without hesitancy that I published my conclusions, for I felt that I stood alone in a field which had been traversed in opposite directions by leading physiologists. I am greatly obliged to Dr. Spitzka for his little note, and since the facts upon which true science rests have been evolved from the most divergent opinions, I shall enter with pleasure upon a further investigation of the sensory function of the chorda tympani. The investigations of Dr. Spitzka have covered a larger field than my own, extending over a larger period of time, and I naturally give to any opinion of his a great measure of weight, especially as I am unable to prove *absolutely* the sensory function of the ganglion upon the nerve. It may act simply as a storehouse.

Respectfully,

HORATIO R. BIGELOW, M.D.

1502 14TH STREET, WASHINGTON, D. C.

MONUMENT TO GALVANI.—The marble monument erected by the Bolognese to the memory of their celebrated fellow-townsman, Luigi Galvani, the physiologist and discoverer of galvanism, was unveiled with imposing ceremonies. The monument is the work of a young sculptor named Adalbert Cencetti; it represents the savant clad in the costume of the last century, standing and watching the movements of the muscles of a frog on an apparatus placed on a table beside him. The monument stands in the old Frie lensphatz, which has been rebaptized "Galvani Place."

HEALTH DEPARTMENT OF PLATTSBURG.—The city of Plattsburg has shown commendable enterprise by creating a board of health. Its statement of mortality for 1879 is before us. The rate of mortality for 1878 was 25 per 1,000; that for 1879 is only 19.22 per 1,000. This improvement can, doubtless, be laid in part or whole to the increased attention to sanitary measures.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 25 to January 31, 1880.

HEGER, A., Major and Surgeon. So much of the order as directs him to proceed to San Antonio, Tex., on or before February 1, 1880, is amended to read on or before February 20, 1880. S. O. 19, A. G. O., January 26, 1880.

WHITE, C. B., Major and Surgeon. His leave of absence on surgeon's certificate of disability granted him July 24, 1879, extended six months on surgeon's certificate of disability. S. O. 20, A. G. O., January 27, 1880.

TREMAINE, W. S., Capt. and Assist. Surgeon. His extension of leave of absence on surgeon's certificate of disability of November 11, 1879, further extended twelve months on account of sickness, with permission to go beyond sea. S. O. 18, A. G. O., January 24, 1880.

Changes in the Medical Corps of the Navy during the week ending Jan. 31, 1880.

Passed Asst. Surgeon P. FITZSIMMONS, from the Naval Hospital, Yokohama, Japan, and to return home and await orders.

Passed Asst. Surgeon J. R. WAGGENER, detailed from the receiving ship at Boston, and ordered to the U. S. S. Vandalia.

Asst. Surgeon GEO. ARTHUR, detached from the U. S. S. Vandalia, and ordered to Naval Hospital, Norfolk, Va.

Asst. Surgeon S. H. DICKSON, detached from the Naval Hospital, Norfolk, and awaiting orders.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 31, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Jan. 24, 1880...	0	5	80	4	337	41	0	0
Jan. 31, 1880...	0	3	54	3	234	52	0	0

ERYSIPELAS IN BELLEVUE HOSPITAL.—Owing to the burning of the wooden pavilion in the Bellevue Hospital yard recently, it has been difficult to dispose of occasional cases of erysipelas arising in the wards. This has led to some exaggerated charges in regard to the presence of that disease in the hospital.

ST. MICHAEL'S HOSPITAL AT NEWARK—A new visiting staff has been appointed in place of the old one which resigned. Much indignation is expressed about the course of the managers, and there is talk of establishing a new hospital. Considerable money has already been promised for such a purpose.

A NEW EYE AND EAR INFIRMARY.—A number of prominent citizens of Newark have subscribed money for the establishment of an Eye and Ear Infirmary in that city. The institution is likely to be in running order before a great while.

EXAMINATIONS FOR ADMISSION TO THE U. S. MARINE HOSPITAL SERVICE.—Examinations for admission to the Marine Hospital Service have just been held at Washington. There were thirty-five applicants and two vacancies. The Examining Board consisted of Surgeons P. H. Bailhache, of the National Board of Health, C. S. D. Fessenden, now in charge of the Marine Hospital in New York City, and T. W. Miller, of Chicago. The examinations were mostly written, and lasted five days. Professor John Guiteras, of Philadelphia, was one of the applicants for admission.

YELLOW FEVER IN BRAZIL.—Yellow fever has appeared at a number of places in Brazil, notably Rio Janeiro. Not many cases as yet are reported.

A NEW HOSPITAL FOR THE INSANE.—As the result of the efforts of certain Catholic sisters, a small retreat for the insane has been established near Rye Point, in this State. It is called St. Vincent's Retreat. The location is said to be salubrious, and the arrangements for the care of patients excellent. Sister Mary Frances Wallace, formerly of the Half-Orphan Asylum of this city, is in charge of the institution.

THE EFFECTS OF CHLORAL ON EYES.—Dr. Wm. Badger, of Flushing, N. Y., writes: "In response to the inquiry from one of your correspondents as to the effect of chloral upon the eyes, I beg leave to state that I once had a lady object to my prescribing the drug, because, as she stated, it always affected her eyes so unpleasantly, describing the same symptoms mentioned by your correspondent."

DR. PAUL F. MUNDÉ has accepted an invitation to deliver the regular course of lectures on Gynæcology at Dartmouth Medical College during the coming fall.

THE LATE DR. FREEMAN J. BUMSTEAD, OF NEW YORK.—At a meeting of the New York Medical and Surgical Society, held January 10, 1880, the following resolutions in relation to the decease of Dr. Freeman J. Bumstead were submitted by a committee composed of Drs. Abram Du Bois and Fessenden N. Otis, and were entered upon the minutes of the Society:

"*Be it resolved*, That this Society has learned with profound sorrow of the loss, through death, of one of its most valued members, the late Dr. Freeman J. Bumstead.

"*Resolved*, That the present occasion is a most fitting one on which to express our appreciation of the honorable character and high professional attainments of our late associate, and our grief at his untimely death.

"*Resolved*, That in his industry, his untiring energy, his methodical devotion to the interests of medical science, and in his most valuable and extensive contributions to medical literature, we recognize a life worthy of all honor, and of being held in perpetual remembrance.

"*Resolved*, That while thus expressing our high estimation of his professional work and life, we do not fail to appreciate the rare talents and accomplishments of our late professional brother in other fields of scholarly pursuit, and that these, joined to a uniform unobtrusiveness of manner, a genial and friendly

tor are, had declared him to us, both as a companion and as a friend.

"*And be it further resolved*, That these expressions of our estimation of the life and character of our late beloved associate, and our sorrow for his loss, be transmitted to his family, and also be forwarded to the leading medical journals for publication.

"W. W. JONES, President.

"A. R. BALL, Secretary."

DEATH OF AN OLD PHYSICIAN.—Dr. Joseph W. Taylor, who died at Burlington, N. J., January 18th, was well known in Philadelphia. He was born in 1810, and, after graduating at the University of Pennsylvania, engaged for some years in mercantile pursuits in Cincinnati. He was also for a time a surgeon on a ship in the trade between Philadelphia and Calcutta. About twenty years ago he settled in Burlington, and during the later years of his life was much interested in the success of a college for the higher education of girls, now being erected in Delaware County, Pa. He was a member of the Society of Friends, as his ancestors had been for several generations.

THE PHILADELPHIA COUNTY MEDICAL SOCIETY held its annual meeting on Wednesday evening, January 21st, for the election of officers for the ensuing year. Sixty-six members were present. Reports from the Board of Censors and Auditing Committee for Treasurer's accounts were presented and read by Dr. S. F. Baldwin. Reports were also received from the Treasurer, Recording Secretary, Corresponding Secretary, Assistant Recording Secretary, and Reporting Secretary. The Committee on Microscopy and the Publication Committee also presented reports for the past year. The following gentlemen were elected for the respective offices for 1880: Albert H. Smith, M.D., President; John H. Packard, M.D., Vice-President; H. Lennox Hodge, M.D., Vice-President; J. G. Stetter, M.D., Censor; Wm. M. Welch, M.D., Treasurer; Charles B. Nancrede, M.D., Recording Secretary; J. D. Nash, M.D., Assistant Recording Secretary; William Goodell, M.D., Corresponding Secretary; Frank Woodbury, M.D., Reporting Secretary; M. O'Hara, M.D., Librarian. Drs. Henry H. Smith, Richard J. Dunglison, and J. Howard Taylor, were elected delegates to the Convention to Revise the National Pharmacopœia, to be held in Washington, in 1880.

A ONE-EYED MONSTER.—In the Wood Museum, at Bellevue Hospital College, is the head of a mulatto baby, which shows a very remarkable peculiarity of development. The head is of the size usual in an infant, and is covered with short, woolly hair to about the normal extent. In the centre of the forehead is a large and well-developed eye. This bulges out almost as in an exophthalmic condition; it is not set in an orbital fossa, nor surmounted by an eyebrow. Below the eye is a depression, at the bottom of which may be seen two rudimentary orifices. These may represent the nose. Just below this is a small, fleshy tongue, about two-thirds of an inch long and half the thickness of a lead-pencil. Below, and on either side of this, are two ears. They are quite well developed and are placed nearly horizontal, so that their concavities look upward and slightly inward. The lobes nearly touch each other. There are no other peculiar marks or rudimentary features. The monster is evidently a single one, and its deformities are very peculiar. It seems, from a superficial examination, as though the whole central part of the face, from the top of the nose to the lower jaw, had failed to develop. The tissues uniting in front would thus bring the ears around into their present position. It is difficult, however, without a dissection, to account for the single eye and its peculiar position. The body of the infant has been lost. The monster was born in New Orleans. It was purchased by a physician, and forwarded by him to New York. The captain of the vessel to whom it was entrusted injudiciously showed the curiosity to the sailors. Their superstitions were excited, and the captain was obliged to pacify his crew by pretending to throw the body overboard. He first cut off the head, however, and only the trunk was lost. It came to the care of Dr. Jas. B. Chilton, of New York, and was given by him to Professor Doremus, who presented it to the Wood Museum.

A NEW REGISTRAR-GENERAL.—The position of Registrar-General of England, lately filled by Major Graham, is said to have been offered to Sir Brydges Henniker, Bart. The appointment is a political one, the new officer having no claim, on account of past services or special ability, to the place. Dr. Wm. Farr, who has been for many years Superintendent of the Statistical Department, was a candidate for the Registrarship. His well-deserved claim not having been recognized, he has sent in his resignation.

SLOW PULSE.—Dr. C. K. Kelley, of Milford, N. H., writes: "In your issue of January 10th some cases of slow pulse are noted. It reminds me of a case I had a few years ago—a young man sick (excessingly so) with acute dysentery. From beginning to the end of his sickness I never found his pulse exceeding *forty per minute*. He recovered in due time, and several months after, meeting him coming from his work (that of a carpenter), I asked to examine his pulse, as he was in fine health, when, lo and behold, it beat exactly the forty per minute as when he was suffering from the dysentery—no more, no less. I think such cases are rare, having never met one like it before nor since, where the frequency of the pulse was the same in severe disease and in good health."

DR. JAMES W. SCRIBNER, one of the oldest and best known physicians in Westchester county, died at his residence in Tarrytown Jan. 25th, in the sixtieth year of his age. He had for some years been the visiting physician at the county poorhouse.

LECTURES ON THE INFECTIVE PROCESS.—Dr. Greenfield has been appointed Professor Superintendent of the Brown Institute, in place of Dr. Burdon Sanderson. Dr. Greenfield will deliver a series of lectures on the infective process. It will embody the results of the experiments and studies at the Brown Institute during the past year.

ANOTHER DEATH FROM CHLOROFORM occurred at a surgical clinic in the Royal Infirmary, Liverpool, during the removal of a small piece of bone. The patient, a man, had taken the anæsthetic before with no bad symptoms. He had also taken ether, but so badly that chloroform was resorted to in the present instance.—*Brit. Med. Journal.*

THE BILL FOR THE CREATION OF STATE COMMISSIONERS IN LUNACY.—A bill was introduced into the Assembly by Speaker Sharpe, February 2d, providing for State Commissioners in Lunacy. It enlarges the present State Board of Charities by three members, whose duties are to examine into and supervise the lunatic asylums of the State. Two of the three new Commissioners must be physicians. The bill was prepared by the committee appointed at the Cooper Union meeting.

Original Lectures.

THE TREATMENT OF CANCEROUS ULCERS, AND GROWTHS NOT REMOVABLE BY THE KNIFE.

By STEPHEN SMITH, A.M., M.D.,

PROF. ORTHOPÆDIC SURGERY, UNIVERSITY MEDICAL COLLEGE; SURGEON TO BELLEVUE HOSPITAL, N. Y.

THE subject of this lecture will be :

The Treatment of Cancerous and Cancroid Ulcers, and Growths not adapted for Removal by the Knife.

You will frequently be at a loss to decide as to the course of treatment to pursue in cases like the one before you. In fact, such cases are usually regarded as not amenable to any treatment, and are allowed to progress, from bad to worse, until they terminate fatally. The results of such treatment are great personal discomfort, pain, and misery, and a lingering death. That such cases may often be greatly benefited by treatment there can be no doubt.

This patient is suffering from a return of cancerous masses in the margins of the old cicatrix, which formed after the removal of a cancerous tumor from the breast, one year ago. Nodular masses appear at several points, while, at the upper angle of the scar, the surface is extensively ulcerated. Her general health is very good, and as yet there is no evidence that cancer has affected internal organs. It may, therefore, be considered a local disease, so far as we discuss methods of treatment.

In the first place, it is evident that this is not a case for removal with the knife. It might be possible to dissect out quite clearly the hard masses, but the ulcerated portion has a base firmly adherent to the deeper structures. An attempt to remove all the tissues involved at this point would be very dangerous, and hence would be an unjustifiable procedure. Shall the case, then, be left to the natural results of the reproductive and destructive process now in progress? I think not. Though we may not hope to cure, we may mitigate and relieve symptoms, and possibly retard the progress of the disease, at least so far as its local manifestations are concerned.

The treatment which I propose to pursue is the application of a caustic. This remedy, though all but discarded by surgeons in the treatment of cancer, has a place in the therapeutics of malignant diseases not yet accurately defined. It is one of the destructive measures which we may resort to, having capacities limited only by the possibilities of its application. As ordinarily employed, its real virtues are not fairly nor adequately tested. We are advised, or rather permitted, by authorities to apply caustics to ulcerated cancerous surfaces, the growth being no longer amenable to the knife. That is, caustics are recommended, as a last resort, when the disease has taken such deep root that it is certain to prove fatal. If useful under such unfavorable circumstances, may they not be far more serviceable at an earlier period? In my experience, caustics judiciously selected, and thoroughly and persistently applied, give the best results of any method of treatment yet adopted.

But, instead of entering into a discussion of the general use of caustics in cancer, I shall limit my remarks to their application in the class of cases represented by this patient—viz., open or ulcerating cancerous growths not removable by the knife. The caustic which I shall select for this case is the anhydrous sulphate of zinc, which is the ordinary sulphate of zinc deprived of its water of crystallization by heat, and reduced to a fine powder. It may be used in the form of a powder sprinkled over the surface, or as a paste made with glycerine, or as a strong ointment. In any of these forms it is the most useful caustic which we have for open surfaces, and it is for the purpose of illustrating its uses that I have brought this case before you.

The employment of sulphate of zinc as a caustic first came to my knowledge through a publication of the late Prof. Simpson, of Edinburgh. At the time I read his article a case was in my ward at this hospital, which was well adapted to test its special virtues. The history of that case, and one or two others in which this caustic was used, will illustrate the methods of employing it, and the results which follow.

Before I detail those cases, I will apply the caustic to these cancerous formations, and notice some points made by Prof. Simpson. The forms that I may use are as follows: on the open surface I may apply the powder simply, or it may be made into a paste with glycerine, one ounce of the dried powder being used to one drachm of glycerine; or a caustic ointment may be formed with an ounce of the dried sulphate to two drachms of the axunge. Either of these preparations are useful on open surfaces. I have selected the powder because I found that it was the only one of these preparations ready for use. In dusting the powder over the surface, it should be so thickly applied as to cover the exposed tissues to the depth of an eighth of an inch or more. That it is not a painless caustic is evident from the complaints of the patient, but it is by no means as painful as many other caustics in popular use. The pain continues but a short time generally, and patients rarely hesitate about a reapplication. There is but slight tendency, as you see, in the caustic to spread, and I readily control it by absorbing the surplus with cotton. After the caustic has been on the wound three or four hours, any liquid residue should be removed by a swab of cotton, and a hot poultice applied. It will require five or six days to separate and detach the slough. It is a feature of the action of this caustic that the slough is, for the most part, white, and is not offensive. If any diseased tissue remain at the bottom of the wound after the slough is completely removed, reapply the caustic as before; but if a healthy surface remains, apply a simple dressing, as balsam Peru.

It will occur to you that it may be as dangerous to reapply the caustic to the base of an ulcer situated over important parts as to attempt removal by dissection. But that is not true, especially when you are employing a caustic which may be applied so lightly as the powdered sulphate of zinc. By very lightly sprinkling the fine powder, the thinnest possible slough may be removed. An additional safeguard is found in the local inflammatory action established by the caustic, which tends to protect underlying parts from injury.

In treating the hardened masses or nodules, we must not apply the powder itself, nor as made into an ointment or paste. For, though it may in these forms irritate the skin, it will not break the surface; that is, it will not act as a caustic where the epithelium is entire. This peculiarity, says Prof. Simpson, "is at once an advantage and a disadvantage: an advantage in so far as it prevents all fear of the caustic ever unnecessarily affecting any of the healthy

contiguous surfaces and parts, and renders its application and use far more simple and certain, and a disadvantage, because, when we wish to apply it to a non ulcerated structure, we must first remove the intervening epithelium by a small blister, or more effectually by the application of an alkaline or acid caustic." I have frequently experienced the advantages to which Prof. S. alludes, but never the disadvantages, because I find in another composition of the caustic an agent capable of destroying the skin. If the dried sulphate of zinc powder is mixed to a paste with the strong sulphuric acid, a caustic is produced of the greatest energy, and yet having all the good qualities of the other forms of the sulphate of zinc caustics. This preparation is an inert-appearing mass, resembling the plaster used by the masons, and will keep any desired length of time. For the reasons given, I select this caustic with which to treat the cancerous growths still covered with the integument. It is best applied with a stick or glass rod. In order to prevent pain, I will first apply the strong carbolic acid to the tumors as an anæsthetic. The surface immediately becomes white; serum is next effused, raising a distinct wheal, and now the local anæsthesia is complete. I will apply the caustic with this pointed stick, though a small glass rod would be better. Dipping the end into the caustic, I make a series of lines, and cross them at short intervals, rubbing the caustic into the furrows until the whole thickness of the skin is charred along the furrows. This operation, you see, is comparatively painless. A poultice must now be applied, as in the former case, and in about a week the skin will separate. On the reapplication of the caustic the powder may be preferable to this form, owing to the necessity of penetrating to a slight depth.

In regard to the action of the caustic, I cannot do better than to summarize Prof. S.'s publication. He states that the part to which it is applied is rapidly destroyed to a depth corresponding to the thickness of the superimposed layer; the slough is of a white color, and separates usually on the fifth or sixth day, leaving behind it, when the whole morbid tissue is removed, a red, granulating, healthy, and rapidly cicatrizing wound. This slough shows no tendency to chemical or putrefactive decomposition, but is firm in texture, and free from taint or odor; the local inflammatory reaction around a sulphate of zinc eschar is generally light and transient; there is no marked effusion or swelling in the surrounding parts, except where the caustic was used in the neighborhood of loose cellular tissue; the general system is not affected by its absorption, nor are there any constitutional symptoms, however freely and lavishly it is used.

It must be apparent to you that we have, in the sulphate of zinc, a caustic which, in its various forms, is adapted to a great variety of conditions. Prof. Simpson sums up its advantages, as compared with other caustics, as follows: "1. Its powerful escharotic action; 2. The rapidity of its action; 3. Its great simplicity and manageableness; 4. Its facility of application; 5. Its non-tendency to deliquesce or spread; 6. Its perfect safety; 7. Its efficacy." He speaks hesitatingly as to the seventh statement, but adds that he has seen not only the surface of cancroid and cancerous ulcers speedily and perfectly excavated by its application, but the surrounding characteristic induration become at the same time rapidly absorbed, and the remaining wound very speedily cicatrizes. He has also found epithelial or cancroid ulcer of the cervix uteri, under the local application of powdered sulphate of zinc, exfoliate its ulcerated surface, have its sanguineous and seropurulent discharges arrested, the parts temporarily, if not permanently, healed, and the patient's health, and strength, and spirits restored, though, on first using the caustic, he believed the disease to be altogether beyond the reach of any remedial measure.

My experience in the use of the sulphate of zinc as caustic has been considerable, and fully coincides with that given above. I will conclude by relating two cases, out of a record of a large number, which confirm Prof. Simpson's apparently exaggerated statements.

The first case was an old lady, 72 years of age, who entered the wards suffering from cancer of the right breast. She was extremely emaciated, and apparently in the last stage of exhaustion. The cancerous growth was of large size, and its surface was in a sloughy and offensive condition. Above the clavicle of the same side was another growth of the size of a small orange, quite movable and painless. At the consultation it was advised to make such applications to the breast as would destroy the offensiveness of the putrefactive discharges, give tonics, and leave the case to terminate fatally by exhaustion. The application selected was the sulphate of zinc, rendered anhydrous by heat, reduced to a powder, and then mixed with the strong sulphuric acid. This mixture formed a white paste, which was apparently inert, though it really had powerful caustic properties. The first application charred the mass to the depth of one-third of an inch. It was attended with considerable pain for an hour. A hot poultice was next applied for three or four days, when the slough separated. The application was then made a second time, and in due time the slough separated. Five repetitions completely removed the diseased mass, and exposed the muscles of the thorax. Simple dressings were then applied; the surface granulated well, and the cavity closed as a healthy wound. The cicatrix was soft and unadherent to the deeper tissues. She left the hospital much improved in health. Four years afterward she returned to the hospital, suffering from rheumatism, and my attention was called to her accidentally by an allusion to the fact that I had previously treated her for a tumor of the breast. It seems that she had led the life of a vagrant, being part of the time in the alms-house, and the remainder she spent wandering about the streets. There was but little change in her general condition. The cicatrix of the removed breast was soft and yielding, but firmly united as when I saw it last; the other tumor had opened, and presented a fungating red surface. She soon left the hospital, and was never examined again.

A case of uterine cancer soon after came under my observation. The patient lived in Jersey City, and at the time of my first visit was pale and emaciated, and had been confined to her bed for three months. She suffered from a constant discharge of thin, often dark, and always offensive matters, and had frequent hemorrhages. On examination, the neck of the uterus was found to have disappeared, and, with a speculum the interior of the uterus was fully exposed. The opening of the cavity was surrounded with a dense, nodulated ring of cancerous structure, from which depended shreds of dead tissue. The case was, of course, hopeless, so far as it might be possible to entirely destroy the cancerous degeneration, but there might be hope of arresting its progress, or of mitigating the most serious symptoms, viz.: hemorrhage. I accordingly applied a

thin layer of the caustic to the most prominent surfaces, and filled the cavity with cotton. On the following day the cotton was removed, and the surface was found covered with a light slough, which separated in three or four days, leaving a very healthy-looking base. The caustic was cautiously applied to different parts, from time to time, until at length the whole diseased surface was treated and a slough had formed and separated. The result was most gratifying; the hemorrhage did not recur; granulations sprang up freely, and appeared to be healthy; the discharge lost its fetor; she rapidly gained strength, and was soon able to leave her bed and take exercise in the open air. The last time I saw her, three months from the time the first application was made, most of the surface was healed. There were still hard masses, perceptible to the touch, but beyond the reach of the caustic; her general health was good, and she was attending regularly to all her domestic affairs. I learned, a year later, that she died suddenly of an uterine hemorrhage, doubtless from the destruction of an artery.

Original Communications.

PERFORATION OF THE SMALL INTESTINES.

By A. W. HAGENBACH, M.D.,
ASST. MED. SUPERINTENDENT COOK CO. INSANE HOSPITAL, JEFFERSON, ILL.

Perforation of the small intestines, excepting as a result of a penetrating wound, ulcerations accompanying typhoid fever, or some severe crushing injury, being a comparatively rare occurrence, shall be my excuse for reporting the two following cases which have come under my notice in the Cook Co. Hospital for the Insane.

Case I.—August L——, aged 60 years, was admitted July 18, 1878, and entered as a case of "mania." Upon examination after admission, found him fairly nourished, heart and lung sounds normal, with a history of excesses extending over several years. He made a rapid recovery, and was nearly well enough to be discharged, when, on the evening of November 5th, he sustained a fall while walking along a newly oiled hall floor. He was unable to get up unassisted, complained of severe abdominal pain, with feeble pulse, cold extremities, and all the symptoms of severe nervous shock well marked. Sinking rapidly, he died at 7.30 P.M., November 7th, just forty-eight hours after the accident. He vomited immediately after the fall, and very frequently afterwards, until within a few minutes of his death, vomiting stercoraceous matter during the night of the 6th and the following day. An injury to the abdominal viscera was diagnosed, but as the fall was a slight one, the resident medical staff were inclined to the belief that the injury resulted in an "internal strangulated hernia," which might have accounted for all the alarming symptoms present. The remedies employed were opium, to relieve pain and arrest the vermicular movement of the bowels; also brandy and punches as stimulants. A post-mortem examination was held fourteen hours after death. The peritoneal cavity was found distended with blood, serum, and the contents of the bowels. A large rent, almost severing the gut, was found in that part of the small intestines resting in the left lumbar region. Extensive adhesions between the intestines and internal abdominal ring were lacerated and probably the source of the hemorrhage. The serum was a result of the peritoneal inflammation, caused by the presence of the intestinal contents. Mr. L. had a large, oblique inguinal hernia, and frequently had trouble in reducing the contents. The adhesive inflammation probably followed the rough handling of the parts during his unskilled efforts at returning the contents of the sac. The case is mainly interesting from the fact that so slight an accident should be the cause of a laceration of the intestine and death.

Case II.—John D——, aged 62 years, was admitted July 17, 1869, suffering with "recurrent mania." In the intervals between the maniacal attacks he was allowed complete liberty to go and come as he pleased, provided he returned in time to lock up the patients, usually about 8 P.M. On November 25, 1879, he went to the village of Jefferson, about two miles distant, and indulged in several drinks (about ℥ vj.) of whiskey, and was returned to the asylum by an attendant about 6 P.M. He at once went to bed, complaining of severe diffused abdominal pains, pulse 80, and slightly feverish. Regarding the symptoms as due to the debauch and exposure, prescribed mustard-plaster to abdomen and carminatives internally. Next morning he expressed himself relieved of the abdominal pain, but instead complained of a shortness of breath and pain in the chest. Upon physical examination, found the signs of pleuro-pneumonia of the lower lobe of the right lung and adjacent pleura well marked. As his bowels had not moved for forty-eight hours, prescribed ℥ i. castor oil, to be taken at once; muriate of ammonia mixture, ℥ iv., teaspoonful at a dose every three hours; and gr. ¼ sulphate of morphine as frequently as indicated after the bowels had moved. During the afternoon the abdominal pain returned, greatly intensified, pulse 110, and respirations 30 per minute. The temperature, unfortunately, was not taken. At 9 P.M. the pain was excruciating, pulse quick and small, respiration hurried.

Thinking that a free movement of the bowels might afford some relief, administered an enema of about a gallon of luke-warm water, first examining the chest and finding the pneumonia involving nearly the whole of the right lung. After the enema, his bowels failing to move, he lay on his abdomen, and after a few convulsive movements expired without a groan. So sudden a death could not be accounted for by the pleuro-pneumonia. The bright red color of the lips showed that the blood as yet was fairly oxigenated. A post-mortem, held eleven hours after death, revealed the following pathological conditions: The right pleural cavity contained about a pint of colorless liquid. The inferior and middle lobes of the right lung were hepatized, sinking to the bottom of a pail of water. The valves of the heart and pericardium healthy. The muscular tissue of the heart was grayish in appearance, and thought to have undergone fatty degeneration. Upon opening the peritoneal cavity, it was found to be filled with the intestinal contents, but no blood. Commencing at the stomach, and passing along the intestines, no abnormal appearances were noticed until reaching about the commencement of the iliac portion, where a circular perforation large enough to admit the end of the little finger was found, through which the intestinal contents were oozing into the peritoneal cavity. The entire intestinal tract was carefully examined for the remains of old ulcerations, but was normal in appearance throughout. The seat of the ulceration

and neighboring tissues were next examined, but nothing abnormal was noticed, aside from a small quantity of pus on the inner surface of the greater omentum, immediately over the perforation. As the perforation was circular, somewhat larger externally than internally, and the absence of all the bowel troubles usually present in internal ulcerations, I was led to regard the perforation as due to a small abscess commencing in the submucous or muscular coats, opening into the peritoneal cavity on the evening of the 25th, when the abdominal pain was first complained of. The complete perforation I believe to have taken place while straining after the enema, the rapid escape of the liquid contents of the intestines producing instant death by severe nervous shock and the arrest of the heart's action. Several inches of the intestine near the perforation were removed and examined more carefully, and the following pathological conditions noticed: The circumference of the perforation of a dirty grayish color, and surrounded by a plexus of enlarged bluish veins. The omenta were loaded with fat; the liver and heart had undergone fatty degeneration. A single perforating ulcer, without any previous symptoms of diarrhœa, emaciation, etc., to direct the attention of the physician to the abdomen, I believe to be very rare. The pleuro-pneumonia, and indirectly to direct the attention to the chest, and attach a false importance to the abdominal symptoms, would make a diagnosis impossible. If anything of the kind had even been suspected, the castor oil and enema would not have been employed. Opium to relieve pain and arrest the vermicular movement of the bowels would, I think, have been the most appropriate treatment.

A CASE OF LUMBO-COLOTOMY ILLUSTRATING THE BENEFITS OF THE OPERATION.

Reported by G. W. HUNT, M.D.,

CORNISH FLAT, N. H.

Operation performed by Dr. C. K. Briddon, New York City.

The report of the following case will, I think, place upon record additional evidence of the utility and humanity of the operation of lumbo-colotomy in cases of occluded rectum:

Farnham Morgan, aged 46, unmarried; farmer by occupation; had always had good health until eighteen months before the above-named operation was performed upon him. This gentleman consulted me some four weeks before the operation, remarking that he hardly thought it necessary to apply to me for medical advice, as his illness was so slight that it would not, perhaps, need medical treatment. He dated his first deviation from health eighteen months back; he then had a subacute attack of dysentery; after his recovery he noticed an irregular condition of the bowels, more frequent calls to evacuate the rectum, but no decided pain or diarrhœa. For the first year it gave him but little trouble except this inconvenience; the last six months the calls to stool were more frequent, attended with some pain and diarrhœa, with slight discharge of blood and mucus. These symptoms were increasing when he first consulted me, for what he supposed to be piles. I did not have an opportunity to examine him by the rectum at that time, but he grew worse quite steadily for the next three or four weeks, although continuing to work upon his farm and ride about. I was then called to him at his house for the first time, December 26, 1878, and found that the discharges from his bowels were very small and thin, containing blood and mucus; hardly any fecal matter passing; abdomen much distended with gas and accumulated contents, some sickness and vomiting. A rectal examination disclosed a large, hard tumor, filling apparently the whole calibre of the bowel, situated about two and one half to three inches from the anus. Repeated attempts were made to pass by the tumor a female catheter, also a male gum-elastic catheter, but failed. My diagnosis was "carcinoma" of the rectum. From this time to January 1, 1879, the fecal discharges, before very small, ceased entirely, and only the local discharges of blood and mucus continued; sickness of stomach and distention of abdomen increasing rapidly. At this time Dr. Edward E. Phelps, of Windsor, Vt., Professor of Pathological Anatomy at Hanover, saw the case and concurred with me in the diagnosis. The next day Dr. C. P. Frost, of Hanover, Professor of the Practice of Medicine, was called to consult with myself and Dr. Phelps. We agreed that the case was carcinoma of the rectum; that the obstruction was so complete that no more discharges from above the tumor could possibly be procured or hoped for. It was decided to propose to my patient the operation of lumbo-colotomy. He was fully informed of the relief he would obtain from it, also the certainty of a fatal termination of his case in a few days if it was not performed.

He was astonished at the announcement that his disease was cancer, and somewhat surprised to learn that he could be relieved for a time from suffering, and his life prolonged by the proposed operation. He took a day to think over the matter whether to have the operation performed or not; then, prompted by my advice, decided to have it performed. He requested that an experienced and skilful operator be procured, and as the operation has not been performed by any surgeon in this State, that I know of, the attention of myself and Drs. Phelps and Frost was turned to a report of four cases of lumbo-colotomy performed at the Presbyterian Hospital, New York City, by C. K. Briddon, reported in the Medical Record December 28, 1878. It was decided to telegraph to Dr. Briddon. Dr. Briddon promptly responded to the call, and arrived the next day.

The patient was placed under ether, and examined by Dr. Briddon, who pronounced it carcinoma of the rectum, and advised lumbo-colotomy as the only means of prolonging life beyond a few days.

Dr. Edward E. Phelps and Dr. Hubert Sleeper were present and assisted at the operation. The details of the operation performed by Dr. Briddon are well known to your readers. A transverse incision was made half-way between the crest of the ilium and lower rib, half an inch behind the crest of the ilium—centre of incision. The superficial incision five inches in length, careful dissection through lumbar fossa, and down by the side of the quadratus lumborum muscles, through the deep abdominal fascia, indistinctly revealed the colon; it was made to bulge into the wound by forcing air into the colon by the anus; the intestine was opened by vertical incision an inch in length, and carefully fixed to the integument by a proper number of sutures.

The patient rallied well from the operation, and, as soon as it was completed, discharged through the wound a very large amount of fæces, which continued at intervals through the night. The wound

healed kindly, without suppuration, and I removed the last of the sutures the sixth day. Distention of bowels went down, and healthy and free discharges from the artificial opening took place quite regularly. In about six weeks from the operation, which was performed January 3, 1879, patient was taking exercise out of doors. Since then he has been able to walk about his farm, oversee his business, and do some light work; digestion is good, and general appearance nearly up to his former standard of health. He has now, one year from the operation, a discharge from the rectum of some bloody mucus and pus; has but little pain.

His treatment is an anodyne injection at night, and twice a day the rectum is washed out with an injection of glycerine and dilute carbolic acid.

At a recent examination of the tumor I found it larger in circumference, pressing somewhat upon the bladder, and externally rising above the pubes. The patient is grateful for this prolongation of his life, and can hardly believe that his disease is really cancer of the rectum. He is able to ride and walk long distances, and do light work. Suffers but little inconvenience from the opening in the colon; wears an abdominal belt, with folded cloths over opening.

Some points in this case let us consider: the first and most important one, the timely rescue from speedy and impending death; this was a salient point in the patient's mind, for which he is very grateful.

A singularity in his case was his general good health and ability to work up to a few days before the operation, not applying for medical advice, and not entertaining any idea that anything serious was the matter with him. I account for this thus: the discharges from the bowels were loose, and did not irritate the parts passed over as much as a firm stool would, and the looseness prevented accumulation of contents until the tumor rendered the rectum almost impervious. Digestion and assimilation being at the other end of the digestive canal, the local disease did not interfere much with their healthy performance. Another point in the case is the freedom, since the operation, from much local pain, and the general good health, the long and slow progress of the disease; patient seemingly as likely to live another year as well as through the past.

I have purposely delayed reporting this case, that I might test the value of the operation to my patient—measured by time; my patient is more than satisfied with the result thus far.

Death Following a Post-Mortem Wound.—One of the assistant physicians at the University College Hospital cut his hand last November while making a post-mortem. At first the wound attracted no particular attention, but subsequently suppuration set in, and finally pyæmia. He died at about the first of January.—*Brit. Med. Jour.*

ENORMOUS DELAY OF THE PULSE.

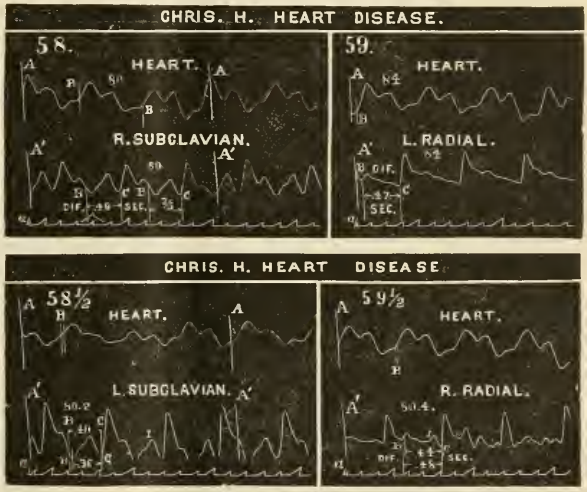
By A. T. KEYT, M.D.,

CINCINNATI, OHIO.

Already my observations* have demonstrated exaggerated delay of the pulse, respectively in mitral insufficiency, aortic obstruction in the form of heavy aortic valves, and aortic aneurism. The case now presented gave an enormous delay of the pulse, and the post-mortem revealed a combination of the three pathological conditions just named.

The case was in the Cincinnati Hospital, and my obligations are due to the physicians in charge for the opportunity to observe it.

Chris. H——, aged 31 years, presented a systolic murmur, distinct over the front of the chest and heard in the back. The murmur was accentuated both at the apex and second left interspace. Second sound clear and loud. Graphic records were taken September 6, 1879. Simultaneous tracings, with accompanying chronogram, were obtained of the heart and left subclavian, of the heart and right carotid,



of the heart and right radial, and of the heart and left radial. These are all shown in the cuts, except the heart-carotid tracings.

Patient died November 16, 1879, and here are notes of the post-mortem, taken from the hospital case-book: Heart weighed fifteen ounces, and was fatty. Just above the aortic valves were two aneurismal pouches, one projecting forward and to the right, the other forward and to the left. The first of these, looking like dilatation of the *sinus* of *Valsalva*, contained no clots; the other was filled with laminated fibrine. The latter was the size of a small apple, and presented a distinct ring about half the diameter of the pouch. It pushed its way in various directions, and pressed upon the pulmonary artery in such manner as to occlude this vessel entirely. Both dila-

*Cin. Lancet and Clinic, March 22, April 19, 1879; N. Y. Med. Record, Nov. 29, 1879.

tations had very thin walls. The aortic valves were much thickened, but were competent by the hydrostatic test. The mitral valve was filled with nodular vegetations, and was incompetent. Right auricle distended and filled with soft clot and fluid. Tricuspid and pulmonary valves presented no disease. Pericardium thickened, and contained twenty-one ounces of fluid. Aorta atheromatous.

Recurring to the tracings, the cardiograms fairly show the phases of the cardiac revolutions, and the beginning of systole cannot be mistaken except in a very insignificant sense. The line B must indicate very closely this beginning. As to the end of systole, I believe it is located near midway of the main descending line. The first pulsation after B, No. 58, probably best shows the time relations of systole and diastole.

In a previous communication,* I well knew that I located the end of systole at the highest point of the main descent, and I still believe that this localization will hold in most cases of perfect traces of normal hearts; but, in such traces as we are able to get of pathological hearts, often the line begins to fall, in consequence of depletion of the ventricle, before the end of systole is reached. The change then transpires in the line of fall, and usually impresses there no definite mark.

According, then, to the interpretation I give the cardiograms in this case, systole, as compared with diastole, is excessively long.

Respecting the arterial traces, the form of both subclavians is *unique*. (The carotid shows essentially the same form.) The peculiarity is carried to some extent into the right radial, but is lost in the left. This singularity of form will not fail to arrest the reader's attention, and its explanation will be sought farther on. A point worthy of notice is, that a just interpretation of these traces will show that the cardiac systolic portion of the pulse is disproportionately short.

But the great lesson of the case concerns the extraordinary delay of the pulse on the systole of the ventricle. Very careful measurements give, as shown (Nos. 58 and 59), $\frac{18}{100}$ second as the delay of the right subclavian, and $\frac{15}{100}$ second as the delay of the left radial. The enormity of this delay is apparent when it is remembered that the normal delay of the subclavian, with pulse at 80, would not exceed $\frac{1}{10}$ second. I believe the retardation of the pulse in this case is the greatest ever observed—certainly the greatest that has been recorded; and if the post-mortem had not furnished the remarkable combination of lesions to explain the delay, it would have been difficult to disarm the criticism that the phenomenon was fallacious and existed only in an error of observation. The three great causes of pulse-retardation coexisted in the case, and the graphic method was competent to demonstrate the amount of retardation so produced.

The physical signs pointed to a cause of systolic murmur located at the pulmonary artery, while the second centre of accentuation of the systolic murmur at the apex indicated, so far, mitral insufficiency; but it was easy to conceive that this murmur might be propagated from the base. As affection of the right side could only produce negative graphic results as regards the pulsations of the heart and arteries, the very positive graphic showings obtained demonstrated the existence of grave disease located at the left side. What manner of disease affecting the left side of the heart could produce the graphic phenomena presented? As to the strange pulse-form, this was to me an enigma. I had never seen its representation, nor allusion to it before. I passed it then without explanation. As to the pulse-delay, the organic conditions producing this phenomenon having been previously ascertained, it was plain that the delay in question must have arisen from one or more of these causes. The limits of pulse-retardation under its causes in single or combined action not having been determined, it was impossible to know with certainty whether such an amount of delay would require for its production all the pulse-retarding lesions; or whether two, or even one, might be sufficient. My observations had shown that the delay is great in mitral insufficiency, enormous in conjoined mitral insufficiency and heavy aortic valves, and distinctly notable in aortic aneurism. From the graphic data in connection with the physical signs I arrived at the diagnosis that the patient was suffering certainly from mitral insufficiency, and probably from added aortic obstruction in the form of heavy valves; but only vaguely did the idea of associated aortic aneurism occur to me. Illustrated now by this case, such extreme delay of the pulse would be accepted by me as diagnostic of the three important pathological conditions in consideration.

The existence of aortic aneurism in association with the other lesions afforded an explanation of the singular pulse-form. The ventricles in their systole compressed the overlying aneurisms, causing the latter to discharge a portion of their blood into the aorta proper, which initiated a considerable wave. This wave, marked 1, was transmitted so much in advance of the true discharge-wave from the heart because escape of blood from the ventricle was delayed by the existing cardiac lesions. The deviation in the upward slope of this wave was probably made by the auricular systole, possibly by default of synchronism between the two ventricles. The ventricle in the latter part of its systole threw quickly a comparatively small amount of blood into the aorta, which accounts for the blending of the second with the early appearing aortic wave.

This description of pulse, it would seem, could only be reproduced by a similar conjunction of conditions, and its demonstration would constitute an important diagnostic sign of these combined lesions.

Thus, step by step, as correct graphic phenomena are connected with well ascertained pathological conditions, will the science of clinical sphygmography be built up.

* N. Y. Med. Jour., July, 1877.

REPORT ON THE USE OF CHLORAL.—The report of the committee appointed by the London Clinical Society to investigate the evils consequent on the use of chloral, is described by the *Medical Press and Circular* as furnishing very little that is new or satisfactory. It contains, however, a few interesting papers; among them are the opinions of eminent authorities in lunacy, who, as a whole, advise against the use of chloral in insanity.

PHILADELPHIA ACADEMY OF SURGERY.—This new association organized Jan. 5th with the election of the following officers: President, S. D. Gross; Vice-Presidents, D. H. Agnew and R. J. Lewis; Secretary, J. E. Mears; Corresponding Secretary, Thos. G. Morton; Treasurer, Wm. Hunt; Reporter, John B. Roberts; Pathologist, S. W. Gross.

Prof. Gross made the society a present of a set of his own works, as the nucleus of a library.

A METHOD FOR THE RADICAL CURE OF HEMORRHOIDS WITHOUT OPERATION.

By CHARLES F. STILLMAN, M.D.,

PLAINFIELD, N. J.

Among the most numerous cases requiring surgical treatment which come before the practitioner, are those suffering from piles, and for these, especially when of long standing and accompanied by more or less prolapse of the rectum, surgery offers us many means of relief: extirpation, by the knife, ligature, or galvano-cautery; absorption, by hypodermic injections, etc. But it seems to me that the main point of treatment—absorption by support and pressure—is overlooked, and this is especially adapted to cure forty cases out of fifty, as the disease is caused by a relaxation of the parts about the anus, due to prolonged constipation, to irregular and prolonged defecation, and any other condition which admits of a filled and heavy rectum bearing down too strongly upon its supports.

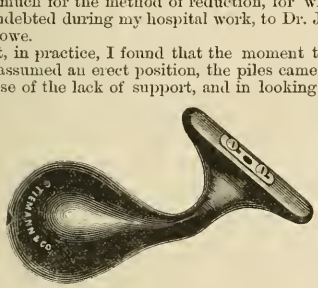
Of course, the less advanced cases can be treated by regulating the bowels with a tonic laxative—the occasional use of a T-bandage when unusual exercise is expected—insisting upon a regular time for defecation, the use of astringent injections, etc., varying for each case. But when the patient exhibits piles of sufficient extent, to be out more or less most of the time, and attended or not with prolapse or hemorrhage, the method of procedure I am about to detail will be found especially useful.

Place your patient in the knee-chest position, and after anointing the parts with some lubricator, gently exercise traction, as in a hernia reduction, and the force of the atmospheric pressure will cause the piles to return. Follow them with your finger until each pile is in place.

This reduction cannot be effected in severe cases, unless the patient is placed in this position, and all cases of piles should be reduced in this manner.

So much for the method of reduction, for which I was indebted during my hospital work, to Dr. Joseph W. Howe.

But, in practice, I found that the moment the patient assumed an erect position, the piles came down, because of the lack of support, and in looking about



to find something which would supply the deficiency, the supporter shown in the engraving was brought to my notice.

It is of rubber, semi-solid, and very flexible, and of the correct shape for introduction and retention in the rectum.

Having been well lubricated, it is passed into the rectum on the withdrawal of the finger, and is kept in place there by a T-bandage and compress. One napkin is passed around the waist, and the two ends fastened with a safety-pin, and a second napkin having a folded one fastened to its centre for a compress over the anus, is passed between the legs and secured to the other napkin in front and behind with safety-pins, being drawn up as tightly as is consistent with the comfort of the patient.

The support produced by the combination of the rubber pessary and the T-bandage is both external and internal, producing rapid absorption and cure without pain, and affords great relief to the patient.

I usually place a mirror at such an angle that the patient can see the whole procedure, and I have yet to find one that cannot practise it upon himself, as he is directed to do each morning on rising, each night on retiring, and after each defecation, although in most cases the latter only will be necessary. Combine with this the use of the usual laxative pill containing the following ingredients, with colocynth added if the constipation is obstinate:

℞. Ext. nuc vomicæ..... gr. vi.
Pulv. rhei.
Sodii bicarb.....āā gr. xxx.

M. Fiat pil. No. xxx.

One to be taken before each meal and at bedtime.

These are the essential features of the procedure, and it is in the combination of the factors just detailed, and not the use of any one, which insures the success the writer has met. And as he has not met with any description of it, or come in contact with any one who has employed it in its details, he has felt impelled to place it before the profession as a slender contribution to that department of surgery.

Progress of Medical Science.

Borocitrate of Magnesia a Remedy for Urinary Calculi.—Dr. Koehler, of Kosten, Germany, states that he has for a long time employed the borocitrate of magnesia with satisfactory results in the treatment of renal and vesical calculi, gravel, and vesical catarrh. Becker showed, in a paper published in 1868, that the secret remedy employed by Paracelsus in the treatment of lithiasis, and called by him "ludus," or "cevillus," was boracite or borate of magnesia. Becker was himself convinced of the value of the remedy, and published a number of cases in which he had employed it with success. Boracite is readily soluble in citric acid, and the borocitrate of magnesia is obtained from the combination. It is a white powder, with a sour taste and without smell. Koehler reports five cases of renal calculi and gravel in which he employed it. In all of them the gravel rapidly disappeared from the urine; the larger stones seemed to have decreased in size, and their evacuation was hastened by the diuretic action of the remedy. One of the patients passed, while under treatment, a uric acid calculus as large as half a pea. This was placed in a saturated solution of the salt, and in eight days it was reduced to sand. In all of the cases treated by Koehler, the gravel and calculi were of the uric acid variety. He recommends it also for the uric acid infarction of new-born children. He prescribes a two or three per cent. solution, and gives a teaspoonful every hour; the urine is usually passed after the second or third dose. In chronic vesical catarrh, the borocitrate of magnesia proves very useful; it increases the flow of urine, and very soon makes it clear and trans-

parent. It acts still better and more rapidly when injected directly into the bladder. For adults, Dr. Koehler prescribes a mixture of one part of the salt to two parts of powdered sugar, with the addition of one drop of oil of lemon to 120 grm. (℥iv.), of this a teaspoonful is taken in half a glass of water three times a day for months.—*Berliner klin. Wochen.*, No. 44, 1879.

Aural Disease Influenced by the Condition of the Teeth.—Dr. Samuel Sexton has made very valuable observations on 1,500 aural cases in which the teeth were examined. In one-third of these cases the aural disease seemed to be influenced by the condition of the teeth through the sympathetic relationship of these parts, aural hyperæmia or inflammation being thus induced through the vaso-motor system.

Dr. Sexton draws attention to the frequency of aural attacks during the eruption of the first teeth, or their early decay, influences that are often co-existent with catarrhal affections of the buccal cavity, throat, and naso-pharynx, causing a sympathetic hyperæmia of the ears, although not always accompanied with pain. He believes that such irritation influences the ear through the Eustachian tubes less often than many suppose. Especially when an intercurrent "cold" supervenes, the gravity of these cases is increased, and the result may be a painful affection of the ear, or, if subacute, deafness may be the prominent symptom; indeed, the latter, when unrelieved, sometimes results in deaf-mutism.

Frequently, decay of the sixth-year molar, which is the first tooth of the permanent set, causes a great amount of distress in both the teeth and the ears, and in fact, from this time on until the rest of the teeth (excepting the wisdom) are cut, at the twelfth year, premature decay may take place, and thus increase the irritation of second dentition.

The eruption of the wisdom teeth, when difficult, is also found to cause the sympathetic action under consideration. The loss of the second teeth is by no means attended with pain in all instances, for, indeed, nearly all them have been known to be lost without occasioning any other symptom than deafness or tinnitus aurium.

Both furuncles and collections of cerumen in the external auditory meatus may be found in connection with carious teeth, and attention to the latter under these circumstances is advisable.

Amalgam fillings in the teeth are liable, under some circumstances, to poison the patient, the attrition to which they are subjected liberating the mercury which enters largely into their composition, and which afterward enters the intestinal tract.

The plates that are used to support artificial teeth irritate the mouth when not properly made, and when they are, as is frequently the case, worn over carious fangs, inflamed palate or gums, collections of tartar on the teeth, decomposed food, and purulent secretions, the consequences are more serious.

Of all the plates in general use, Dr. Sexton's observations lead him to believe that those made of vulcanite are the most inimical to health, partly on account of the toxic effects of the large quantity of sulphide of mercury used in their manufacture, and partly owing to the local irritation of the mucous membrane of the mouth with which they lie in contact. A carcinomatous affection of the jaw has been known to arise from the persistent use of these plates.

More frequent oroscopic examinations in all aural cases are recommended by the author, and it is urged also that further investigations of the effects of the various metals worn in the mouth should be made, in order that it may be ascertained whether or not they exert a deleterious influence on the patient's health.

Horizontal Extension and the Porous Felt Jacket for Curvatures of the Spine.—Dr. Benjamin Lee, in a paper read before the Pennsylvania Medical Society, describes the advantages he has found by horizontal extension in spinal curvature; he also advocates the substitution of porous felt for plaster-of-Paris as a material for jackets. Dr. Lee had for a number of years been accustomed to treat patients with idiopathic lateral curvatures by the daily use of the swing in mild cases, and by the jacket in the severe ones. He found, however, so great pain and discomfort produced by vertical suspension, that he resolved to substitute horizontal extension for it. He obtained equally good results in this way, and, though not giving up suspension entirely, employs extension oftener. His apparatus is a sort of rack with transverse rollers, on which the patient lies, and to which the head, hands, and feet are attached. Extension is made by levers. When a plaster jacket is to be put on, a number of strips of bandage cut so that they will reach around the chest and overlap, are soaked in plaster-of-Paris and laid upon the rack; the patient is then placed face downward on these; extension is made, and the plaster strips brought about the body and moulded on.

This is the general method. The details are minute, and require an illustration. Dr. Lee only makes a mould for a cast of the chest in this way, and then moulds a porous felt jacket on this cast. He considers that the regular practice of horizontal extension as a gymnastic exercise is of great use in the idiopathic curvatures of young girls. His own apparatus is being constantly used for this purpose.

The porous felt jacket is recommended as superior to the plaster-of-Paris for the following reasons: 1. Its permeability to air and moisture; 2. Lightness; 3. Adjustability. By heating it, any desired change in shape can readily be made. 4. Ease of removal. 5. Cleanliness.

Dr. S. T. Davis's solution for saturating bandages is commended as causing them to dry with the greatest rapidity. It consists of sulphate of potash ℥ij., common salt ℥ij., water Ovi.—*Trans. Med. Soc. State of Penn.*, 1879.

Hinderance to the Respiration by Disease in the Nose.—Dr. D. H. Goodwillie, in a paper read before the Canada Medical Association, refers to the deviation of the cartilaginous septum and hypertrophy of the soft parts as the chief causes of nasal obstruction. For the cure of the former condition he showed a set of excising nasal forceps. On one blade of these forceps is a circular, ring-shaped knife, and this cuts against the flat surface of the other blade. Dr. Goodwillie simply applies the forceps and cuts out the deviating part. He reports a number of successfull cases.—*Can. Med. Record*, Dec., 1879.

Acute Orchitis treated with the Roller Bandage.—Take a roller bandage one inch wide, four yards long, and thoroughly imbued with starch. Seize the affected gland with the left hand so as to make a pedunculated tumor of it, and apply four turns of the bandage around the neck of the tumor. Then wind the bandage about the tumor itself in such a way as to effect firm compression. The patient should be kept in bed and the bandage be applied morning and night; no other treatment is necessary. In a few days the swelling will all be removed, but

the bandaging should be continued a little longer, to prevent relapse. This method will be found less annoying and painful than that of using adhesive plaster.—*Dr. L. A. Dugas, in N. O. Med. and Surg. Journal*, Jan., 1880.

A Simple Apparatus for the Treatment of Fractures of the Clavicle.—Dr. L. A. Dugas, in the *N. O. Med. and Surg. Journal* for January, describes his method of treating fractures of the clavicle. He discards all axillary pads as inefficient and injurious. To meet the usual indications in this fracture he prepares and applies an apparatus as follows: a square yard of unbleached shirting is cut diagonally so as to form two triangular pieces. To each of the acute angles of one of these pieces a three-inch bandage, four yards long, is sewed. This completes the apparatus. The displacement is then reduced by carrying the shoulder upward, backward, and outward. Then the middle of the long side of the triangle is applied beneath the elbow, leaving a margin of four inches behind, the right angle being directed toward the fingers. One of the acute angles with its bandage is now carried between the arm and chest, up to the fractured clavicle, around the back of the neck, over the sound shoulder in front and beneath the axilla, and finally around the arm just above the elbow. The other end of the strip is then carried up, in front of the forearm, to the sound shoulder, behind and beneath the axilla, and around the chest and arm, so as to meet its fellow and be tied to it. Finally, the margin left projecting behind the elbow should be elevated, doubled, and stitched, so as to prevent the elbow from sliding out. The strips encircling the arm should also be stitched to prevent displacement.

This bandage is said to be a very comfortable one, easily applied, and efficient.

Abstract of an Experimental Research on the Physiological Actions of Drugs on the Secretion of Bile.—Dr. Wm. Rutherford communicates to *The Practitioner* an abstract of his experiments with hepatic stimulants. They were made upon fasting dogs which were curarized to prevent the struggles and interference of the animals.

The process was as follows: About eighteen hours after the last meal the dog was curarized by injecting .020 grms. of curara into the jugular vein. Owing to the consequent motor paralysis, artificial respiration had to be maintained during the experiment.

After the curarization, incisions were made, and a glass canula tied into the common bile-duct; the gall-bladder was emptied and the cystic duct tied. The animal was then wrapped up in cotton-wool and his temperature kept normal. The drug to be experimented on was then injected into the duodenum, and its effect upon the flow of bile or the intestinal secretion watched.

A large number of preliminary experiments were made and precautions taken. In the first place the dog was the animal chosen, because his digestion most nearly resembles that of man. Chloroform was not used, because it of itself was found to be a hepatic stimulant. Curara was proved to have no effect on the hepatic function. Temporary biliary fistulæ were made, because all previous experiments with permanent ones had proved unsatisfactory and contradictory. The coefficient of the secretion of bile—that is, the amount secreted in a unit of time for every unit of body-weight—was determined. Analyses of the bile secreted, before and after giving a hepatic stimulant, were made, and they showed that although the bile, when secreted in larger amounts, is more watery, yet the total amount of bile constituents is also increased. Post-mortems were made in every case, and the intestinal mucous membrane examined. These post-mortems showed that there are purely intestinal and purely hepatic stimulants; also that over-stimulation of the intestinal glands reduces the amount of bile secreted, even though the intestinal stimulant is also a cholagogue. The injection of the drug directly into the duodenum was thought to make no difference in its action, except in the case of calomel. This drug was shown to have no effect on the liver itself. When given by the stomach, however, a portion is turned into *corrosive sublimate, which is a cholagogue.*

The following are the results of the experiments with the special drugs:

Croton oil has scarcely any influence on the liver.

Magnesium sulphate diminishes the secretion of bile.

Manganese sulphate stimulates the intestinal, but not the hepatic secretion of the dog.

Castor oil diminishes the flow of bile when purgation is well established.

Ammonium chloride is said, in ten or twenty grain doses, to produce diuresis, diaphoresis, nervous exhilaration, and intestinal peristalsis. It is highly recommended in "torpor of the liver." It diminishes the biliary secretion of dogs, however, and presumably in man.

Gamboge is a duodenal irritant; nevertheless, it diminishes the flow of bile. It follows that *duodenal irritation* does not necessarily cause increased flow of bile.

Resina podophyllio is a powerful hepatic as well as intestinal stimulant. In violent purgation by it, however, the secretion of bile is lessened.

Iridin and *euonymin* powerfully stimulate the liver and mildly stimulate the intestine. The dose of iridin is four grains, that of euonymin two grains; two grains of hyoscyamus should be added to prevent griping. The drug is best given at night, followed by a saline drink in the morning. Iridin is the more powerful remedy of the two.

Hydrastin, *Resina juglandis*, and *Resina baptisiæ* moderately stimulate the liver, and mildly stimulate the intestine. The three drugs are commended to to the attention of the physician.

The general result of the experiments showed that powerful purgation diminished the bile secretion. This is done, probably, by lowering the blood pressure in the liver, and by sweeping out materials that would otherwise go to make up the bile. It is suggested that a purely intestinal stimulant may benefit the liver by carrying out matters from the intestine which would otherwise be absorbed and hamper hepatic action.

In estimating the value of these experiments, several facts should be remembered: the subjects were dogs; they were under the influence of a powerful drug, and life was kept up by artificial respiration; the biliary apparatus was interfered with surgically; the drugs used were injected into the duodenum, not the stomach; the dogs were healthy, their livers normal; the experiments referred only to the bile-secreting, not the bile-expelling function. Taking into account all these things, however, we can still say that the experiments have demonstrated some important physiological facts, and furnish valuable indications for clinical study.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Within the past few years the Medical Society of the State of New York has made a reputation for useful work which is not equalled by any similar organization in the country. The session just closed is no exception to the rule in being an interesting and profitable one to all concerned. The attendance of delegates was large, and every district of the State was well represented. The business of the meeting was despatched with a readiness which reflected credit upon the committee having the matter in charge, and as much time as possible was devoted to the reading of papers and to scientific discussions. The variety of material presented was sufficient to satisfy the wants of all, and took in a wide range of subjects. It is noticeable that authors are becoming more and more impressed with the idea that the majority of practitioners are interested in facts which have a practical bearing, and which tend to help them in the daily exercise of their calling. Many a youngster went home with a new idea, and not a few veterans were amply repaid for the time and attention they gave to the meeting.

The necessity for curtailing the time for reading papers had the merit of compelling authors to present their points in the briefest possible manner, and of giving a suitable variety to the business of the sessions. The discussions were not so easily shortened, and in some instances, with the best of intentions on the part of the participants, became somewhat uninteresting, if not tedious.

The President, Dr. H. D. Didama, of Syracuse, delivered an admirable inaugural address, and, in the choice of his topic, showed himself thoroughly alive to the necessities of the hour. His pleasant allusion to the increase of medical students was hardly congratulatory in character: in fact, in view of his suggestions for a higher standard of medical education, they were a trifle sarcastic. The absolute necessity for higher medical culture was dwelt upon with great earnestness, and the suggestions offered were of a character that commend themselves to thinking and practical men.

The necessity of preliminary education, the increase in the length of the lecture term, compulsory attendance upon lectures, frequent written examinations, and final examination by an independent board, were matters to which allusion has often been made, but it was the first time that they were presented in so direct manner by the presiding officer of the Medical Society of the State of New York—the first time that an opportunity was offered for a declaration of opinion by the Society. This being the case, we are not a little disappointed in the course taken by the committee appointed to report on the address. While acknowledging the necessities for the reforms named, and especially that one referring to independent examinations, the committee seemed indisposed to make any recommendations, and virtually acknowledged that the difficulties in the way of the accomplishment of such an end were practically insurmountable. The majority of the profession think differently, are not willing to believe that no changes can be made, and agree with Dr. Didama in the belief that the obstacles are not so great as they seem, and that a determined effort in the right direction may be rewarded with success. The suggestions of the President regarding medical education in his inaugural are more elaborately presented in his annual address, and will be read with profit by all interested in advancing the standard of medical qualifications.

THE SOCIAL POSITION OF THE DOCTOR.

Dr. J. Milner Fothergill has been writing letters to the *Philadelphia Medical Times*, and in the later ones he discussed the social position in England of the doctor and of the doctor's wife. His remarks were somewhat severe, particularly as regards the wives. These, he said, if married to country doctors, had no position at all, but were virtually social pariahs and outcasts. The editor of the *British Medical Journal* criticised these statements quite sharply, and a controversy upon the matter has arisen which brings it into some prominence. In the United States it is probable that the question of social position occupies the smallest possible share of the doctor's attention. Still he cannot always ignore it; and an occasional discussion of the subject is pertinent.

The fact that a man is a physician is one which, of itself, has very little to do with any position of society he may take. If he has the means, the inclination, and the manners, he can enter as high a circle as any one; and is neither helped nor handicapped, as a rule, by his being a professional man. If a doctor, as is the case generally, makes no effort for special

social recognition, he takes such a place as any other person does of similar circumstances of education or breeding.

In large cities, and particularly in New York, the medical profession makes quite a large and important element in social life. We have here many young men of means and education, who have settled in New York because they prefer to live in such a city, and can afford to wait a number of years for their practice. There is always a full representation of this class at receptions, dancing-parties, Germans, and dinners. They will be found in all the clubs also. The older members of the profession take more, of course, to dinner-parties and club-life. And here they are quite prominent factors.

We speak of "social position" because, although this is a republic, the existence of social distinctions is a not inconspicuous fact. Still, in many parts of the country, these distinctions, above a certain point, are not very strongly marked. Even in cities a person whose manners and speech rank him a gentleman will find few to snub him on account of his occupation, his ancestors, or his poverty.

The social position of the doctor in this country is not, on the whole, a very high one; because the individual doctor has not the means, and often it must be confessed, not the education or taste, to make it such. He can, however, be whatever he chooses, or at least whatever nature gave him capacity to be, unless accidents of poverty or domestic life drag him back.

Social position is one of those minor aims of life which shipwrecks more people than grand ambitions do. It is not a thing for which men should struggle. Physicians are expected to be gentlemen, and their social ambition need go no farther.

INFECTIOUS PNEUMO-ENTERITIS.

It is estimated that $20,000,000 are lost to this country every year from infectious pneumo-enteritis, or, as it is popularly called, hog-cholera. The disease is more extensive and malignant than any other of the common affections of domestic animals. Its study, therefore, is very important from an economic point of view. It has peculiarities, also, which give it a great deal of pathological interest. The labors of Klein in England, and of Detmers and Law in this country, under the direction of the U. S. Commissioner of Agriculture, have brought out many new facts, and our knowledge of the disease is now tolerably full.

Infectious pneumo-enteritis, as it is called by Klein, has been known in Europe for over a century; it has ravaged the herds of the United States for thirty or forty years.

It is a purely and actively contagious disease, manifesting itself with the symptoms of a continued fever, bronchial and pulmonary inflammation, more or less enteritis, uniform involvement of the lymphatic system, and some one or more of the serous membranes of the trunk.

It varies much in virulence, but an ordinary attack comes on slowly. The pig becomes listless and inactive, loses its appetite, and is generally constipated; the thin parts of the skin become reddened, and finally petechial; the inguinal glands are always swollen; cough develops, and rapid respiration; the thermometer shows a high fever, and, later on, examination may detect consolidation of the lungs. The animal emaciates; is disinclined to stir; it shows evidences of pain in the abdomen; mucus hangs about the mouth; the eyes are bloodshot; a specific offensive smell is emitted; it staggers about, and finally drops down to die of exhaustion. The disease lasts from one to two weeks.

About eighty per cent. die, and those that survive are rarely of any further use. Upon a post-mortem examination, evidences of bronchitis, and of more or less lobar and lobular pneumonia, are found in the lungs. In earlier stages, many small emboli are found, which swarm with a peculiar kind of bacteria, called by Detmers *bacilli suis*. In the intestines are pathognomonic changes in the form of morbid growths upon the walls of the cæcum and colon. They sometimes occur in other parts of the alimentary canal, and even upon the conjunctiva and parts of the skin where there have been wounds. These little tumors are round, more or less elevated and pedunculated, and vary in size from that of a pin's head to a quarter of a dollar. They are composed of proliferations of the intestinal epithelium, contained in a stroma of new connective tissue. They are soft and easily broken down. The *bacilli suis* are described by some as swarming in the midst. The lymphatic glands are enlarged, and the pleura, pericardium, and peritoneum are either one or all affected. The morbid changes vary greatly in the prominence with which they affect the different organs. Sometimes it is the lungs chiefly, and sometimes the intestines or serous membranes; but the most constant pathological changes are in the lungs and intestines. The blood is said to contain many bacteria of the kind mentioned.

The infecting poison is a very active one. It may enter the system by the lungs or the stomach, or it may be inoculated. It is easily decomposed, but cold only locks up its powers, without destroying them. It affects other animals than swine, notably the mouse, which, being diseased, may carry the contagion. The infectious principle exists in the secretions and organs, but it is doubtful if the blood is always infectious. It may be carried by water as well as by air. Klein discovered it to be a particulate body; Drs. Detmers and Law seem to think it is a variety of bacteria, the *bacillus suis*, an organism which

was cultivated and studied microscopically by them. A belief in the fact that this organism is the *contagium vivum* is asserted with a positiveness not warranted by the facts.

Dr. Detmers cultivated these *bacilli suis*, and describes them as at first minute round bodies, or bacilli-germs, about .0007 mm in diameter. These gradually lengthen into rod-bacteria, which become very long, and then, breaking up, give birth to numerous *bacilli*-germs again. These sometimes have a tendency to unite into viscous clusters. It is suggested as most probable that such clusters are formed in the narrow capillaries of the lungs, constituting the emboli there found; these emboli subsequently set up a pneumonia.

As regards treatment, it seems to be the wisest plan not to attempt any. Rigorous precautions should be taken to prevent the disease; but, if it has once entered a herd, all attempts at dallying with the poison are unwise. As soon as a pig is discovered to have the disease, it should be removed from the herd, and when dead, should be buried deep in the ground. The poison incubates from three to fifteen days, and the latter period of time must be waited before one can be sure that the herd is safe. Disinfectants should be freely used among the animals, chloride of zinc being probably the best. By vigorous measures of this kind the disease may be stamped out eventually. It should be the duty of the State, or general government, to make laws against the selling or transportation of the diseased animals.

The report of the Commissioner of Agriculture, which contains the results of his investigations of this disease, and from which we take many of the above facts, is an extremely creditable one. It is illustrated with micro-photographs and colored lithographs, the latter being exceptionally good specimens of a generally inane branch of art. The pathological work has been very conscientiously done, and, though showing some crudeness in the matter of its theories, makes, on the whole, a valuable contribution to the science of morbid processes. The fact that within two months the United States Government has published three works of high scientific interest is extremely gratifying.

BILL FOR CREATING A NEW LUNACY COMMISSION.

As stated in our last week's issue, a bill has been introduced into the State Legislature for the creation of a new Lunacy Commission. It provides that the Governor shall appoint three additional members to the State Board of Charities, two of whom shall be physicians unconnected with any insane asylum. The State Board of Charities, including these three new members, is to constitute the State Commission in Lunacy, and is to have all the powers and duties heretofore vested in the State Commissioner in Lunacy. In its annual report, the Board is to give such facts and make such suggestions as may be deemed useful for the improvement of the lunacy administration of the State. The Board is also empowered to appoint a Secretary in Lunacy, who shall be a physician and not a member of the Board. To this officer the duties of examination and supervision may be delegated. He is to receive a salary of $4,000 a year.

The committee who drew up the bill have, as will be seen, acted on the principle that it is wisest to ask for but little in the beginning. The proposed law makes only a few changes; these are, however, important ones.

Under the old law the State Commissioner was hampered by the personal influences about him, and by the fact that his authority was in part divided with that of the State Board of Charities. The present bill proposes to concentrate the power in a single experienced and able Board. To this the Secretary in Lunacy must be responsible. As the term of service of the members of the Board is eight years, it is unlikely that he will be subject to the caprice of governors, or the changes of parties. The addition of three members to the Board, two of them medical men, will enable that hitherto overworked body to pay much greater attention to insane asylums.

The arrangement proposed by the bill is also an economical one, nor does it throw any increased burden on the executive department.

Thus, although the apparent difference, under the new plan, is only an increase by three in the membership of the State Board of Charities, the real difference, in a concentration of authority, in an infusion of special knowledge and increased strength, and in an elevation of the supervising power above political and personal influences, is very great. The bill is wisely drawn, and it should be made a law. If those desiring insane asylum reform can get anything at present, they ought to get this.

It must be confessed that a glance from the bill to our city asylums, with their twenty-five hundred insane herded together under the care of one scientific gentleman, leads us to feel that reforms move slowly. But, as the mills of the gods are said eventually to triturate to extreme minuteness, we can await in patience that desirable consummation to the existing abuses.

The committee print along with the bill a letter from Dr. Henry Maudsley, of England, indorsing the lunacy commission of that country. There is also given a brief history of the present movement for asylum reform, in which the fact is forgotten that the movement was initiated and put on its feet by Miss A. A. Chevalier, of Boston. A valuable letter written by Mr. Dorman B. Eaton is also printed. It gives an analysis of the lunacy laws of Great Britain as compared with those of this State.

Reports of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

SEVENTY-FOURTH ANNUAL MEETING,

Held in Albany, February 3d, 4th, and 5th, 1880.

TUESDAY, FEBRUARY 4TH — FIRST DAY — MORNING SESSION.

THE Society met, pursuant to adjournment, in the city of Albany, at 10 o'clock A.M., and was called to order by the President, DR. HENRY D. DIDAMA, of Syracuse.

Prayer was offered by REV. ALBERT FOSTER.

INAUGURAL ADDRESS.

The President then delivered his inaugural address, in which he thanked the Society for the honor it had conferred upon him, spoke of the increased attendance in our medical schools as a comforting assurance that the race of doctors is not in imminent danger of perishing from the face of the earth, 2,282 students having attended during the past year, a healthy increase of 267 over the number last year reported; 608 graduates in 1879 – an increase of 82—66, or 9 per cent., failing to receive diplomas. He then spoke of the demand for a higher standard of medical education. It would not be unwise to urge the adoption of some uniform plan, such as related to preliminary qualifications, longer terms, compulsory attendance, frequent written examinations, and final examination by some independent board selected either by this Society or the regents of the University.

It would seem that some modification of the law forbidding physicians to divulge information derived at the bedside of the patient should be made. Gross injustice may result as the law now stands.

It would be well if some law was passed that would protect physicians and surgeons from prosecution by scoundrels who acted under the pretence of securing damages far malpractice. The plaintiff should be required to give bail for costs.

A suggestion regarding holding meetings for purely scientific purposes was presented for the careful consideration of the Society, as received from a correspondent, without making any recommendation.

On motion by DR. N. C. HUSTED, the President's address was referred to a special committee.

ANNOUNCEMENT OF COMMITTEES.

The President then announced the following committees:

For Business Committee — Drs. A. Hutchins of Brooklyn, B. F. Sherman of Ogdensburg, and Miles B. Hyde of Cortland.

For Committee on Credentials—Drs. J. W. S. Gouley, of New York, L. E. Felton, of St. Lawrence County, and H. B. Allen, of Onondaga County.

RELATIONS BETWEEN IMPERFECT ACTION OF THE OCULAR MUSCLES AND FUNCTIONAL NERVOUS DISEASES.

DR. GEORGE T. STEVENS read a paper upon the above subject, which modified his views first presented eight years ago, and embodying the principle that functional nervous diseases are, beyond all others, dependent upon anomalous refraction of the eyes, by the addition of imperfect action of the muscles of those organs, so that his modified view would read functional nervous diseases are, beyond any and all other causes combined, dependent upon anomalous conditions of refraction and accommodation of the eyes and imperfect action of the muscles of those organs. Cases were related: one of epilepsy relieved by relaxation of spasm of the ciliary muscles; and one of hystero-epilepsy. Several cases of like character were given; also cases of chorea.

The discussion was opened by DR. ROOSA, of New York, who stated that it had been shown conclusively that a great many children had chorea who had no error of refraction; and also it had been shown that children had recovered from chorea long before any one knew about the use of spectacles. However, the notion that irritation in the eyeball might cause reflex troubles in other parts of the body, no gentleman of experience doubted. That fact had been recognized, more or less, ever since the function of the ciliary muscle had been accurately determined. He thought that the facts which had been presented should lead to a great deal of caution in thinking that glasses will cure any large percentage of cases of epilepsy, anæmia, chorea, neuralgic headaches, or other nervous troubles.

DR. A. JACOBI, of New York, remarked that chorea was due to a number of causes, as was well known, and Dr. Stevens had added another cause, which, perhaps, might explain some of the cases which heretofore had been regarded as idiopathic.

DR. STEVENS remarked that the practical fact was not so much with reference to the use of glasses as that the nervous trouble in his cases was cured by treatment directed to the ocular muscles, and he believed that in a good proportion of cases of functional nervous diseases the cause would be found to exist in irregularities in the action of those muscles.

COMMUNICATIONS FROM COUNTY MEDICAL SOCIETIES.

DR. W. M. CARPENTER, of New York, presented communications from the Medical Society of the County of New York, which were referred to appropriate committees.

THE SECRETARY presented a communication from Broome County, relating to abuse of medical charities.

DR. JAS. P. WHITE, of Buffalo, presented a communication from the Erie County Medical Society relating to vivisection, and also a communication from the Buffalo City Medical Society upon the same subject. Referred to the Business Committee.

DR. N. C. HUSTED reported as delegate to the New Jersey Medical Society.

DR. ALEXANDER HUTCHINS, of Brooklyn, then read a paper on

FORCED ALIMENTATION.

The point in practice is to recover nutrition. A family that partakes well of all meals is exceptional. There may be no desire for food, but yet it may be possible to cultivate a desire. How is it possible to cause the needful amount of food to be taken appropriately? Will the systematic placing of food in the stomach finally restore the appetite? It can; but, to do so, precise and intimate directions must be given, and the patient must be placed under the uncompromising direction of the physician. The heathen sympathetic parents must first be converted. It is less a question of what shall be eaten than that something shall be eaten. It should be taken in as large quantities as possible, and at suitable intervals, as a stern duty. The operation may be strictly mechanical at first. At first food should be used not requiring mastication. Solids or semi-solids are

preferable over liquid foods. The idea is to habituate the stomach to the presence of food. One essential direction is that the food should be taken at regular intervals, extending over a long period. Commence before getting up in the morning, and continue for eighteen out of twenty-four hours. Free use of water is to be insisted upon as a requisite in forced alimentation.

COMMITTEE OF INVITATION.

On motion, the Committee of Arrangements was authorized to invite members of the Legislature who are members of the regular medical profession, to be present and participate in the transactions of the Society.

Dr. W. W. Potter, of Batavia, then read a paper on

RECTAL ALIMENTATION.

The subject was considered under three heads: 1. Stomachical rest, 2. Methods of alimentation, 3. Conclusions. Absorption of the material is not the sole manner in which material enters the blood. The most reasonable explanation was found in the retrostaltic action of the intestines, so that the pabulum is carried up and meets the descending digestive juices. There were two causes which tend to narrow the field of usefulness for this method of sustaining nutrition: 1. Want of proper confidence upon the part of the profession; and 2. Prejudice upon the part of the laity.

The two papers were discussed by Drs. Kneeland, Allen, Van Derveer, Wey, Palmer, Jacobi, Stoddard, and Ward.

COMMITTEE ON THE PRESIDENT'S ADDRESS.

The following Committee on the President's Address was announced: Drs. E. M. Moore of Monroe County, W. C. Wey of Chemung, J. V. Kendall of Onondaga, and N. C. Husted of Westchester.

REMOVAL OF SPLINTER OF WOOD FROM THE CORNEA.

Dr. David Webster, of New York, reported a case of the above character occurring in a child about three years of age. He regarded it as a unique case. The splinter and a photograph of the eye were exhibited.

FOREIGN BODIES IN THE EYE.

Dr. Charles S. Bull, of New York, read a paper on the above subject which contained a concise account of several cases, such as a fragment of steel in the vitreous, fragment of steel in the anterior chamber, with traumatic cataract. The paper was discussed by Dr. Roosa.

The following papers were read by title and referred to the Committee of Publication:

"Cerebral Thrombosis following Operation," by Dr. T. H. Squire, of Elmira; "Memoir of Dr. Joseph Bates," by Dr. M. L. Bates, of Columbia; "Memoir of the late Dr. D. Griffin Sweet," by Drs. Hamlin, Brown, and Willard; "Physiology of Opium-Poisoning," by Dr. Nelson Sivison, of Burdette; "On the Duties and Responsibilities of Medical Men in Relation to School Hygiene," by Dr. Harvey Jewett, of Canandaigua; "Endemic Pleuro-Pneumonia in New York in the Last Twelve Years," by Dr. James R. Leaming, of New York; "A Case of Diaphragmatic Hernia," by Dr. E. D. Ferguson, of Troy; "Tapping the Abdomen," by Dr. F. Hyde, of Cortland; "Memoir of Dr. H. W. Dean," and "Memoir of Dr. M. Stein," by Dr. E. V. Stoddard, of Rochester.

CASES OF THE ANKLE-JOINT IN CHILDREN.

Dr. V. P. Gibney, of New York, read a paper on the above subject, which was discussed by Dr. E. M. Moore, of Rochester, who did not exactly accept the expectant plan [see Record, vol. xvii., 126], and by Dr. L. A. Sayre, of New York, who thought it well to aid nature in effecting a cure.

The Society then adjourned to meet at 3 P.M.

FIRST DAY.—AFTERNOON SESSION.

The Society was called to order at 3 P.M. by the President, who announced the following

COMMITTEE OF NOMINATION.

For First Senatorial District—Dr. J. C. Hutchison, of Kings Co.; *for Second Senatorial District*—Dr. D. Greenesey, of Dutchess Co.; *for Third Senatorial District*—Dr. A. Van Derveer, of Albany Co., *for Fourth Senatorial District*—Dr. E. M. Lyons, of Clinton Co.; *for Fifth Senatorial District*—Dr. H. S. Crandall, of Madison Co.; *for Sixth Senatorial District*—Dr. T. H. Squire, of Chemung Co.; *for Seventh Senatorial District*—Dr. J. V. Kendall, of Onondaga Co.; *for Eighth Senatorial District*—Dr. Chas. C. F. Gay, of Erie Co.; and Dr. S. O. Vander Poel, of Albany Co., appointed by the President.

Dr. Wm. H. Bailey, Chairman of the Committee of Arrangements, reported the names of the following gentlemen as members by invitation, and they were duly elected:

Drs. Montrose A. Pallen, of New York; C. D. Alton, of Hartford, Conn.; Wm. J. Lewis, of Albany; P. R. Furbeck, of Gloversville; James A. Deane, of Catskill; Geo. T. Stevens, of Albany; C. E. Nichols, of Troy; Conant Sawyer, of Au Sable Forks, Essex Co.; F. S. Greene, of Coxsackie; W. M. Carpenter, of New York; A. B. Hinsted, of Albany; C. H. H. Sayre, of New York; Lewis Balch, of Albany; S. O. Vander Poel, Jr., of Albany; Wm. Hailes, Jr., of Albany; W. A. Hall, of Fulton, Oswego Co.; W. W. Munson, of Otisco; G. W. Earle, of Tully; P. J. Keegan, of Albany; L. C. Dodge, of Ronse's Point, Clinton Co.; G. D. Dunham, of Plattsburg; H. L. Fellows, of Albany; C. B. La Moure, of Albany; E. V. Stoddard, of Rochester; H. R. Starkweather, of Albany; D. H. Cook, of Albany; Robert R. McIlvaine, of New York, and delegate from the Ohio State Medical Society; Thos. B. Van Alstyne, of Albany; Walter J. Ransom, of Lockport; John M. Bigelow, of Albany; A. W. Stein, of New York; W. F. Fulton, of Newark, Wayne Co.; Sheldon Voorhees, of Albany; J. Dunn Lodi, of Seneca Co.; James S. Cooley, of Sandy Hill.

CYSTORRHAGIA.

Dr. J. W. S. Gouley, of New York, then read a paper upon the above subject. It will apear in a subsequent number of the Record.

Dr. Gouley also presented a renal calculus removed from the body of a cow by Dr. C. L. Stiles, of Owego. It was of a zigzag shape, and was supposed to be composed of a mixture of hippurate of soda and phosphates.

PERITYPHLITIS.

Dr. Wm. C. Wey, of Elmira, then read a paper on the above subject, which consisted of the report of a case, and a tabulated statement of fifty-nine cases taken from the Surgeon-General's Office, Washington, D. C. In his case the operation was performed on the fifteenth day. The wound closed, was reopened

the following day, and a drainage-tube inserted, which had been worn 145 days. It was now one and a half inches long, at first being about six inches in length. He favored early operative interference, and regarded it as unwise to delay the exploratory incision in his case to the fifteenth day. From general treatment, the ordinary evidence of the formation of pus may be obscured. The drainage-tube is an essential aid to cure, and should be inserted when the operation is performed. Of the 60 cases, 45 were male, 12 female, and in 3 the sex was not given. The earliest operation was performed on the fifth day, the latest at the end of two years. Foreign body was mentioned in 19 cases; recovery occurred in 44 cases; 12 patients died; result not stated in 3.

Dr. Van Derveer, of Albany, then read a paper on

TYPHLITIS AND PERITYPHLITIS,

which consisted in the relation of cases, with remarks on three cases of perityphlitis. The operative interference gave all the good results that could be desired. All these cases recovered. In typhlitis he suggested opening the abdominal cavity, observing antiseptic precautions in cases where marked symptoms were present.

THE EVIL CONSEQUENCES OF NEGLECTED COLD IN THE HEAD

was the title of a paper read by Dr. D. B. St. John Roosa, of New York. It will be found that the most frequent origin of chronic diseases of the lachrymal passages, of the conjunctiva, and of the middle ear, is in a neglected "cold in the head." It is generally conceded that no person in perfect health, except under extraordinary circumstances, takes cold, and yet the majority of mankind have, at some time, suffered from cold in the head. The popular idea that a cold in the head is an insignificant affair is founded on the fact that most of the people recover to such an extent that they are able to go about afterward and engage in their ordinary avocations without special notice, at the time, of the consequences of the disease which may even then be settled upon them. He believed that very many of the maladies which prevented men and women from reaching the allotted period of threescore and ten have their origin in these colds; and that many serious affections which act as an impediment to the success of their victim are dated from a cold in the head. He then gave a biographical sketch of a child, perhaps feeble when born, or, it may be, in an apparent condition of strength, who became the subject of hypertrophy of the tonsils, swollen naso-pharyngeal mucous membrane, watery eyes, and, worst of all, impaired hearing, perhaps so much impaired that he is not able to hear enough to perform properly the ordinary duties of life. He then described the suffering incident to an acute attack of cold in the head, and of the impossibility of having repeated attacks without producing serious local changes—not only local change, but a permanent impairment of general nutrition. To correct all this, special attention must be paid to *individual* hygiene, and if the evil consequences of neglected cold in the head were to be abolished, the abolition must come through a public sentiment properly educated upon this as upon all other sanitary questions. The family practitioner must warn the people everywhere, as opportunity is offered, of the danger in this direction, and of the means by which it is to be avoided. The first great precaution to be taken by each individual is to keep himself in a good general condition, and to do that he must studiously avoid all that tends to disorder the skin and the functions of all the organs of the body. Children must be clothed in flannel the year round, and must be made to know that the staples of diet are milk, bread, meat, vegetables, and fruit, and that tea and coffee and pastry of all kinds are to be used only as the greatest of luxuries, and therefore in small quantities and at long intervals. The community can only become healthy as individuals become healthy, and all the reforms necessary to make Memphis and Grenada places in which yellow fever never comes, may be adopted; but if control cannot be obtained of the bodies of, and the modes of living of the individuals in those and all other places, evils not so suddenly fatal, but none the less in the end dangerous, and all the time injurious to their well-being, will certainly exist.

It was discussed by Dr. Jacobi, of New York, and Dr. Kneeland, of Onondaga Co.

Dr. L. D. Bulkley, of New York, then read a paper

ON THE MANAGEMENT OF INFANTILE ECZEMA.

The text of his paper was the saying of Wilson: "To be a successful practitioner in eczema the medical man must be an accomplished physician, and to manage the local treatment with success he must be an able surgeon."

This paper was discussed by Dr. A. Jacobi, of New York, who pointed out what he regarded as two errors in the paper. First, a comparison between the secretion from the kidneys and from the breast. In the kidneys there is a real transudation, in the breast there is a real transformation. Fortunately for the young human being, slight changes in the diet of the mother had no influence on breast-milk. Second, the addition of potassium to cow's-milk, for it already contained too much potassium in comparison with breast-milk. Sodium should be added rather than potassium.

Dr. Sherman, of Ogdensburg, thought the eruption should be healed as rapidly as possible.

Dr. E. M. Moore, of Rochester, was not exactly able to understand how, if eczema was a constitutional disease and yielded only to constitutional treatment, that Dr. Bulkley should report cases of cure of eczema by the use of Martin's rubber bandage. How does the rubber bandage cure if eczema is a constitutional disease?

Dr. H. G. Piffard, of New York, thought that not all cases of eczema could be treated alike, and referred somewhat extensively to the indications for treatment in different cases.

Dr. Bulkley remarked that he did not make the reference to urine and milk from the breast as being analogous secretions; but the point was merely that, when urates in excess, oxalates, etc., were found in the urine, it was evidence that the mother's general condition was not good; therefore, her milk was not what it should be.

With regard to the use of the rubber bandage, the cases in which it effected a cure alone were cases of dermatitis, and not true eczema.

The Society then adjourned to meet at 7 P.M.

First Day—Evening Session.

The Society was called to order at 7.20 P.M., by the President.

The first order of business was the report of the Committee on By-Laws, which was made through the Chairman, Dr. Wm. C. Wey, of Elmira. Several amendments were made, the most important of which

was raising the annual dues of permanent members to five dollars, to take effect next year.

Dr. John C. Peters, of New York, then read a paper on the stamping out of

ZYMOTIC DISEASES.

The interest of the paper centred upon thorough disinfection of *all* discharges from the patient sick with any disease belonging to this class, and upon cleanliness, and protection, and disinfection the surface of the body by disinfectant inunction. The Society then adjourned to meet Wednesday, 10 A.M.

WEDNESDAY, FEB. 4TH. SECOND DAY—MORNING SESSION.

The Society was called to order at 10 A.M., by the President.

Prayer was offered by Rev. Edson McChesney.

The minutes of the preceding day were read and approved.

A memoir of Dr. John S. Thorne was presented by Dr. Hasbrouck, and referred to the Committee of Publication.

MEMBERS BY INVITATION.

The Chairman of the Committee of Arrangements announced the following as members by invitation, and they were duly elected:

Drs. Henry Foord, of Canenovia; Anthony P. Ten Eyck, of Defriestsville; R. H. Sabin, of West Troy; Maurice J. Levi, of Albany; T. K. Perry, of Albany; M. H. Turner, of Crown Point, Essex Co.; John C. Hall, of Olmsteadville, Essex Co.; Ezra C. Bartlett, of Albany; Wm. H. Murray, Eugene Van Slyke, and C. S. Merrill, of Albany; H. D. Vosburgh, of Lyons; Franklin Townsend, Jr., of Albany; H. T. Dana, of Cortland; E. W. Carmichael, of Sand Lake; Chas. H. Chubb, of Palensville; E. G. Clark, of Sandy Hill; Harriet A. Woodward, of Albany; Smith Parker, of Whitesboro; E. B. Taft, of Albany; Thomas Riley, of Adams, Mass.; D. M. Wilcox, of Lee, Mass.; John Gerin, of Auburn; E. T. Rulison, of Bath-on-the-Hudson.

TREASURER'S REPORT.

Dr. Chas. H. Porter, of Albany, Treasurer, presented his report, which was accepted and referred to an auditing committee.

A detailed report was made of the receipts and deficiencies in connection with the publication of the Transactions from the year 1874 to the year 1879, inclusive, and one reason for an apparent deficiency for the publication of the Transactions for 1879 arose from the fact that the Medical Society of the County of New York had not yet sent in its order nor paid the amount of its assessment.

Dr. D. B. St. John Roosa, of New York. Mr. President: I wish to make an explanation as showing pretty well the reason why the Medical Society of the County of New York appears this morning as not having ordered its quota of Transactions, and I wish these facts to go upon record. I have no official connection with the Medical Society of the County of New York, but, as a member of the State Medical Society, I was very much interested to find out whether it was true or not that there was no kind of demand for the volumes of Transactions of the Medical Society of the State. I found that the Comitia Minora of that society had agreed upon a resolution, the details of which I cannot remember, but the gist of it was the Medical Society of the County of New York should refuse to take any more volumes of the Transactions, because it was an illegal action to tax them for the books. As soon as I heard of this proposition of the Comitia Minora, I went into the Society, as some of the gentlemen upon this floor will testify, and brought the question to an issue, in the month of October, as to whether or not the Medical Society of the County of New York proposed to pay its assessment and take its volumes of Transactions; and I took opportunity, at the same time, to make the statement that no facilities were given to the members of the County Society to see the Transactions of the State Society. The County Society at that time, by a large vote—the ayes and nayes being called for—decided to pay this amount, and the understanding was that the payment should be made at once; but it has not been done, despite this record, and the Society, through its officers, so far as we know, has declined to order that the amount should be paid, and that in the face of the expressed will of the Society. Then, at a meeting held on the Monday evening preceding this meeting, a resolution was introduced from the Comitia Minora, stating the so-called facts as regards the funds and the legality of the taxation by the State Society, protesting against such assessment; and that resolution was, by an overwhelming vote at a large meeting, laid upon the table, and yet, to my surprise, I come to Albany and find that the Transactions for 1879 have not been ordered, and, worse than that, that they have not been paid for.

The Auditing Committee consisted of Drs. W. W. Porter, H. C. Hendrick, and H. March.

Dr. Chas. H. Porter made a report concerning the Merritt Cash Prize Fund, which was accepted.

On motion made by Dr. J. P. White, of Buffalo, a committee of three was appointed to report upon the resolutions and recommendations of the Treasurer, and to report, if possible, at the present meeting. The committee consisted of Drs. J. P. White, D. B. St. John Roosa, and E. R. Squibb.

Business communications were received from the Secretary, and referred in the usual manner.

Dr. Dimon, of Cayuga County, reported upon the resolution adopted at the annual meeting for 1879, regarding the raising of a roll of honor, upon which should be recorded the names of those who lost their lives in the service of their country or in the discharge of their professional duties. He suggested that the names of those who have made useful discoveries either in medicine or surgery, all such names being referred to the Committee of Examination, should also be added to such a roll.

On motion by Dr. Squibb, the report was accepted and adopted, with the amendment that the words "The Committee" be substituted for the words "The Secretary," and that the committee be continued.

PERMANENT MEMBERSHIP.

Dr. J. V. Kendall introduced the following resolution:

Resolved, That the names of permanent members who are over ——— years of age, and whose names have been dropped from the list because of the non-payment of their annual dues for three years, shall be placed upon the list of honorary members, and shall be restored to permanent membership upon payment of all arrearages.

The resolution was referred to the Committee on Legislation.

MISCELLANEOUS BUSINESS.

Dr. A. Jacobi, of New York, read a communication relating to the *protection of infancy and childhood*, and offered the following resolution:

Resolved, That the President appoint a committee, consisting of *five* members, to co-operate with the Society for the Prevention of Cruelty to Children in all things pertaining to the physical and moral welfare and the safety of infants and children, to report at the next annual meeting.

The resolution was seconded by Dr. Squibb and unanimously adopted, and the President appointed Drs. A. Jacobi, S. O. Vander Poel, E. M. Moore, Jas. P. White, and Joseph C. Hutchison, as such committee.

REFRACTURE IN CORRECTING DEFORMITIES.

Dr. C. C. F. Gay, of Buffalo, read a paper on the above subject, in which he favored the operation strongly, and thought that its neglect had arisen largely from overlooking two important factors: 1. The innocuous nature of refracture; and 2. The certainty and rapidity of the reparative process. He subscribed to the claim that refracture was the most essential in bones of the lower extremities; but greater risks should be taken, in view of greater benefits that might be obtained by refracturing other bones.

Dr. Frank H. Hamilton, of New York, was surprised that the author of the paper had gathered the impression, as he seemed to have done, that surgeons did not advise refracture of vicious limbs, for by so doing, he had put himself in antagonism with the opinion of the majority of the profession upon the subject. The propriety of refracture should *at once* be considered, but *always* in the light of all those circumstances which may endanger a favorable result.

Dr. Robert F. Weir, of New York, then read a paper on "A New Method of Treating Deformities of the Nose," which will appear in a future number of the Record.

"Dr. Thomas Keith and Ovariotomy" was the title of a paper read by Dr. J. Marion Sims, of New York, who said that Keith's great success as an ovariotomist was due to something besides antisepticism, and that he believed it to be "removal of all blood, and making the peritoneal cavity dry and clean before closing the abdominal wound," an application of common sense based upon true principles of science.

Dr. Robert Newman, of New York, referred to a case of ovariotomy in which, in 1866, he divided the pedicle by means of the galvano-cautery knife, and he believed that the heat by that means can be maintained at a more even degree than by any other. In the same case he used *antiseptic treatment* and a drainage-tube, and the patient recovered and is still living.

Dr. W. A. Hall, of Fulton, reported a case of "Uterine Fibroid removed by the Vaginal Method."

"Hyoscyamus in the Treatment of the Insane" was the title of a paper read by Dr. John P. Gray, of Utica. He had used the fluid extract, the solid extract, and the tincture for many years with marked benefit, and also hyoscyamine both by the stomach and hypodermically.

Dr. E. R. Squibb remarked that hyoscyamine was so loosely crystallized that a variety of conditions of the mouth and stomach might readily decompose it by reason of the presence of abnormal secretions, and that fact probably explained why this and other alkaloids, such as pilocarpin, even morphine, administered by the mouth did not produce their physiological effects, whereas, when used hypodermically, the effect produced by the same preparation might be prompt and satisfactory.

The paper was further discussed by Drs. Jewett, Piffard, and Gray.

Dr. A. C. Post, of New York, then read a paper on

CERTAIN UNUSUAL DEFORMITIES OF THE FINGERS AND TOES,

which was discussed by Drs. Frank H. Hamilton, Kneeland, and Robert Newman.

THERAPEUTICAL NOTES.

Dr. A. Jacobi, of New York, under the above heading, referred to the use of *phosphorus in substance* in the formation of new osseous tissue. He also referred to *carbolic acid and oleic acid*, in the proportion of one to eight or ten, and applied to the skin which is tolerably normal around a patch of erysipelas to arrest its further development. Small quantities, frequently repeated, every half-hour or hour, and thoroughly rubbed in with a protected finger. He also spoke of the use of *iodine dissolved in oleic acid* as a local application to the inner surface of the uterus. *Pure quinine* may also be dissolved in *oleic acid* and introduced into the system through the skin.

PAPERS READ BY TITLE.

The following papers were read by title and referred to the Committee of Publication:

"Case of Successful Removal of a Piece of Steel from the Vitreous." By Dr. J. S. Prout, of Brooklyn.

"Report of Delegates to Massachusetts Medical Society." By Dr. P. R. H. Sawyer, of Bedford.

"The Care of the Sick Poor." By Dr. E. Hutchinson, of Utica.

The Society then adjourned to meet at 3 P.M.

SECOND DAY—AFTERNOON SESSION.

The Society was called to order at 3 P.M., by Dr. N. C. Husted, of Tarrytown, Vice-President.

VIVISECTION.

Dr. John C. Dalton presented the subject of vivisection and a memorial addressed to the Legislature of New York, which was unanimously adopted. He also introduced a resolution providing for a special committee, composed of permanent members of the Society, to be known as the Committee on Experimental Medicine, which should be empowered and instructed to take charge of resolutions adopted by the Society in 1867, 1875, and 1880, and present them to the Legislature whenever it was deemed advisable by the committee so to do.

The resolution was adopted and a committee appointed, consisting of Drs. James R. Wood, E. M. Moore, James P. White, Geo. J. Fisher, T. H. Squire, S. O. Vander Poel, Willard Parker, J. C. Hutchison, H. D. Didama, and N. C. Husted.

Dr. Jas. P. White, of Buffalo, introduced the following resolution:

Resolved, That the Committee on Experimental Medicine be empowered to associate with themselves any additional members from State or county medical societies they may desire in order to facilitate the action of the committee, and also to adopt such other measures as they may deem expedient in the discharge of their duties and the furtherance of their work. Adopted.

COLLES'S FRACTURE.

Dr. E. M. Moore, of Rochester, then read a paper on the above subject, which will appear in a future number of the Record. The paper was discussed by Dr. Pilcher, of Brooklyn, on invitation.

ROTARY LATERAL CURVATURE OF THE SPINE AND THE PLASTER-OF-PARIS JACKET.

Dr. Lewis A. Sayre, of New York, introduced a modification in the use of the jacket in the above condition, which was not to remove the *whole of the dressing* and apply a new jacket, but only that which covers the prominent portion of the trunk, cutting out a piece and then adjusting a new portion, which covers and fits snugly to the eminence. The plan was demonstrated.

MODIFICATION OF THE PLASTER-OF-PARIS JACKET.

Dr. Henry Foord, of Cazenovia, exhibited a plaster jacket which he had used in the treatment of a case of Pott's disease, and which was so arranged that *half of the jacket* could be removed while the other remained in position to maintain extension. The jacket was divided on each side, and the sections were held together accurately by clasps made of tin, resembling strap-hinges, and with pins that could be drawn out when the jacket was to be opened. The clasps were placed one near the top and the other near the bottom on each side.

Dr. Sayre thought the idea a very good one, as it apparently sustained extension while the dressing was being changed. It also held the parts together perfectly, and prevented any motion between the cut edges.

MEMBERS BY INVITATION.

Dr. Wm. H. Bailey, Chairman of the Committee of Arrangements, announced the following names as members by invitation, and they were duly elected: Drs. John Thompson, Gideon H. Armsby, G. L. Ulman, Geo. H. Newcomb, of Albany; Chas. S. Allen, of Greenbush; F. L. R. Chapin, of Glenn's Falls; Jas. S. Cooley, of Sandy Hill; Henry Gray, of Greenwich; Meigs Case, of Oneonta; Paul Roach, of Quaker Street; C. W. Hamlin, of Middleville; and Warren Schoonover, of New York.

SUBPERIOSTEAL RESECTION OF THE SHAFT OF THE HUMERUS, WITH REPRODUCTION OF THE BONE.

Dr. Geo. F. Shrady, of New York, read a paper on the above subject, which will appear in a future number of the Record. It was discussed by Drs. A. C. Post and L. A. Sayre.

Dr. Alex. W. Stein, of New York, exhibited a new urethral dilator and speculum. (See Medical Record, vol. xvi., p. 263.)

NEW TREATMENT OF EMPYEMA.

Dr. A. M. Phelps, of Chateaugay, reported a case of acute empyema treated by double puncture: one anterior, as low as possible, into which a tube is introduced; another posterior, into which was introduced a valve drainage-tube, the valve outside. A rubber funnel was attached to the tube in the anterior opening, which was for ablation, and the fluid flowed through, cleansed the cavity, and the valve in the drainage-tube posteriorly prevented the entrance of air.

Dr. F. R. Sturgis, of New York, read a paper on so-called

GALLOPING SYPHILIS,

in which he discussed the causes that render cases liable to run a rapid course, described the symptoms of a typical case, and gave the treatment, which consisted in the use of large doses of iodide of potassium, mercury judiciously exhibited early and late, iodine, tonics, etc. These cases are seen especially among the intemperate, and among persons who have passed the middle period of life.

MERCURIALS IN CONGESTION AND SUBACUTE INFLAMMATION OF THE DUODENUM

was the title of a paper read by Dr. E. M. Chapman, of Brooklyn. It was favorable to their use, and cases were reported.

Dr. Daniel Lewis, of New York, presented

MARSDEN'S TREATMENT OF CANCER,

with a relation of cases. It consists in the use of the arsenious paste, made by uniting *two drachms of arsenious acid* and *one drachm of sanguinaria of gum acacia*, and spread over the entire surface of the cancer, provided it does not exceed one square inch in size. The ease with which it can be used, and the readiness with which patients submitted to the plan of treatment, made it worthy of consideration by the profession.

Dr. W. W. Crandall, of Andover, spoke in favor of the treatment, and Dr. Frank H. Hamilton, of New York, said that he could not admit that it was the most radical method of curing either epithelioma or cancer. Dr. L. D. Bulkley, of New York, remarked that he had the records of twenty cases of epithelioma, in which the method had been adopted, and successfully, with only a single exception.

PAPERS READ BY TITLE.

"Pathology and Anatomy of the Spinal Cord," by Dr. J. C. Shaw, of Brooklyn.

"Memoir to Dr. W. W. Ely," of Rochester.

"Veratrum Viride in Pneumonia and Rheumatism," by Dr. Wm. B. Alley, of Nunda.

A communication from Broome County was referred to the Committee on Legislation.

INJURIOUS EFFECTS OF RETAINED LACHRYMAL SECRETION.

Dr. J. S. Prout, of Brooklyn, spoke upon the above subject, referring to those cases in which the tears are not carried away by the lachrymal canal, and so either causing inflammation, or prolonging that already existing.

The Society then adjourned to meet in the Assembly Chamber at 8 P.M.

SECOND DAY—EVENING SESSION.

THE PRESIDENT'S ANNUAL ADDRESS.

The Society convened in the Assembly Chamber, and at 8.15 P.M., Dr. D. B. St. John Roosa, Ex-President, introduced the President, Dr. H. D. Didama, who delivered the Annual Address, which was brief and suggestive, and was delivered in an easy and entertaining style.

"The opprobria of one age are the accomplished facts of another," was its textual sentence, and, by way of illustration, reference was made to ovariotomy, which, performed first by McDowell in 1809, fell into such disrepute that no longer than thirty years ago it was characterized by distinguished members of the profession as an operation not fit to be made.

Even so late as 1857, Velpeau, in the name of French surgery, denounced it as a venturesome proceeding, and, still later, Scanzoni asserted that the

operation was inexcusable under any circumstances, and that the surgeon who performed it was the guilty instrument of suicide. To-day ovariotomy is universally acknowledged to be one of the most beneficent of the great surgical achievements.

The speaker then referred to the progress which has been made, as illustrated by the advanced methods of treating vesico-vaginal fistula, cataract, morbus coxarius, and in the use of antiseptics in surgery.

But, much as had been accomplished in the recent past, the medical profession is not compelled to shed bitter tears because there are no new worlds to conquer. There are incentives to the noblest ambition and deepest research in the abundance of work still remaining undone—still clamoring to be done. Reference was then made to the signal progress which has been made in medicine, as illustrated by the fact that, with regard to some diseases, we are now familiar with their natural history, and know them to be self-limited. But, notwithstanding the marked progress, such as encountered in Jenner's great discovery in the last century, and many others of much more recent origin, fatal epidemics of disease are not infrequent. It still continues that one-half of the human race die in infancy and in early childhood.

There are many diseases, as Bright's disease, which are sufficiently common to give opportunity for full investigation, and yet, so far as we know, are still incurable. Measles, scarlet fever, and other fevers, run their accustomed course, modified, perhaps, by progressive medicine, yet not cut short a single hour. Must this remain so? Must our aspirations, and hopes, and efforts, be paralyzed by the dictum of authority? "Thus far canst thou go, but no farther." It is but a brief period since it was held and taught, by the illuminate of the profession, that Asiatic cholera arose without known cause, and spread mysteriously, subject neither to therapeutical restraint nor sanitary law; that small-pox originated from filth and bad air, and even fear alone. Many diseases, whose origin was once unknown, are now acknowledged to be due to specific morbid elements, capable of producing its own kind and none other, and also capable of indefinite multiplication. The President then dwelt at some length upon the germ theory, which, although not universally accepted, accounted as no other hypothesis does for the incubation of eruptive and other fevers, even the malarial.

He then passed to the consideration of a State board of health, to be composed of the most learned, prudent, practical, and energetic sanitarians in the land, to whom should be given plenary power as a means for dissipating prevailing ignorance, rousing the people from their dangerous apathy, and compelling the accomplishment of incalculable good. It would be the duty of this board to instruct the laity, and the profession as well, concerning ventilation, drainage, sewerage, foods and drink, pointing out that the germs of many deadly diseases, while never produced by filth, are often transplanted to it, that they breed and flourish in it, and are disseminated by it. It should be the further duty of this board to teach that zymotic diseases are preventable and should be abolished, and to impress upon the people that the continuance of these diseases should imply not ignorance alone, but criminal negligence. Reference was then made to the effects of a few zealous specialists in opposing and seeking to prevent by legislative enactments all experimentation on living animals, however carefully and painlessly conducted the investigation may be, and however wisely designed to advance that science which relieves human suffering and prolongs human life—as if the humblest of us were not of more value than many sparrows—notwithstanding the undoubted benefit that has accrued to the human race from vaccination, and many other agents to which we have been helped by the aid of the lower animals.

The President then spoke of the difficulties laid in the way of advancing science and of the reforms necessary, and urged his hearers and fellow-workers to labor with patience and perseverance for the grand results that were inevitable in the future. He suggested a more careful and practical course of instruction for medical students, and argued that the manner in which the rising generation of physicians were to be trained for their future work was of great importance to the future welfare of the people. The medical schools should recognize the need of better methods and a more thorough culture. The plan which he suggested, although it might not be the best, was one which afforded a fair foundation for a system of better medical education. It was substantially as follows:

1. All persons wishing to enter a medical school must have, as the minimum, such qualifications as are required for admission into any literary college in the nation.
2. A complete graded system.
3. The course of instruction extended to at least three years of nine months each.
4. Constant attendance upon lectures; oral examinations weekly, and written ones monthly, required of every student.
5. Anatomical, chemical, histological, and pathological work compulsory.
6. Satisfactory examinations preceding advancement in grade.
7. Final examination conducted by an independent board appointed by the Regents of the University.

The benefits arising from the adoption of such a plan were then pointed out, and dwelling upon the future possibilities, he closed by saying: "However anxious I may be that needed reforms should take place speedily, I am not discouraged at the slow progress which fruitful truth makes in permeating the masses of men, for she has 'the eternal years of God' before her; neither am I doubtful of that final triumph of sanitary, medical, and religious science, when 'there shall be no more an infant of days, for the child shall die an hundred years old,' and when the hoary head shall always be a crown of glory, because always found in the way of righteousness."

The address was listened to with marked attention, and at its close Dr. John P. Gray, of Utica, moved that the thanks of the Society be tendered to the President for his able and interesting address, and that a copy be requested for publication in the volume of Transactions. The motion was seconded by Dr. Wm. C. Wey, of Elmira, and unanimously adopted.

The Vice-President, Dr. N. C. Husted, then declared the Society adjourned to meet at nine o'clock on Thursday morning.

The annual banquet was held at the Delavan House immediately after the President's address, and in all respects was pleasant and satisfactory. Toasts were responded to by Drs. D. B. St. John Roosa, Alex. Hutchins, Lewis A. Sayre, John C. Dalton, Wm. C. Wey, Frank H. Hamilton, and Mr. Wm. H. Bogart. Responses were made, upon call, by Dr. E. M. Moore, Mr. McKelway, and Dr. Wm. H. Bailey.

THURSDAY, FEB. 5TH.—THIRD DAY.—FINAL SESSION.

The Society was called to order at 9.15 A.M., by the President.

Prayer was offered by REV. J. LIVINGSTON REESE.

The minutes of the previous day were read and approved.

MEMBERS BY INVITATION.

DR. BAILEY, Chairman of the Committee of Arrangements, proposed the following gentlemen as members by invitation: Drs. George W. Papen, Thomas M. Trego, Willis G. Tucker, Jas. P. Boyd, Jr., P. B. Collier, of Albany, and H. F. Ketchum, of Cambridge.

The Committee of Publication made a report, which was accepted.

The report of the special committee upon the medical act contained in the new proposed revised statute was read by DR. H. G. PIFFARD, of New York, Chairman, and referred to the executive officers of the Society, with power.

DR. H. G. DU BOIS, of Oneida County, made a report as delegate to the Michigan State Medical Society.

REPORT OF CENSORS.

The censors of the *first* district made a report and offered the following resolution:

"*Resolved*, That the censors of the Society be instructed to use the greatest caution in recommending candidates for licenses to practise medicine and surgery, and that only after a rigid examination at a higher standard than that required to graduate from any medical college in the land."

The resolution was adopted.

The Business Committee reported a communication from an aggrieved member of the profession of the County of Monroe, which was referred to the Committee on Medical Ethics.

DR. E. R. SQUIBB, of the committee appointed to report upon the recommendations contained in the treasurer's report, reported in favor of a more free distribution of the Transactions of the Society in the discretion of the officers of the Society, and that volumes for past years be sold at $1.50 per volume. The committee also recommended the publication of an edition of 1,200 copies of this year's Transactions, upon the same conditions as last year.

The report was accepted and the recommendations adopted.

The Auditing Committee reported that they had examined the accounts of the treasurer, and had found them correct in every particular. Accepted.

The Business Committee presented a memorial from the Greene County Medical Society, which was referred to the Committee on Ethics.

THREE CASES OF PUNCTURING GUNSHOT WOUNDS OF THE THORAX

were then reported by DR. JAMES CHAPMAN, of Medina. Two of the cases proved fatal.

DR. F. C. CURTIS, of Albany, made

SUGGESTIONS REGARDING IMPARTIALITY IN THE EXAMINATION OF CANDIDATES FOR DIPLOMAS.

The profession, as a matter of self-protection, has a right to say what the qualifications shall be of those who seek entrance into it. He recommended that medical schools be requested to resign their chartered right to confer degrees in medicine, and vest that right in the Board of Regents constituting the University of New York.

DR. E. D. FERGUSON, of Troy, reported a case of

DIAPHRAGMATIC HERNIA.

DR. J. VEDDER, of Saugerties, read a paper

ON HYGIENE.

It was discussed by DR. E. M. MOORE, of Rochester, who spoke of the great difficulty in getting municipal authorities to recognize the necessity of sanitation; by DR. B. F. SHERMAN, whose experience had been somewhat similar to Dr. Moore's in that particular; by DR. I. N. GOFF, who believed that, if the people were properly educated, there would be no difficulty in getting them to respond by money or otherwise for that which is necessary to promote either the health of the children in the public schools, or the health of the people in general; by DR. JOHN SWINBURNE, who spoke of ventilation by means of frames covered with thin, unstarched muslin, to take the place of the whole, or part, of the upper or lower half of the window.

A paper from DR. A. N. BELL, of Garden City, was read by title, and referred to the Committee on Hygiene.

REPORT OF THE COMMITTEE ON THE PRESIDENT'S INAUGURAL ADDRESS.

DR. E. M. MOORE, Chairman, reported that the committee agreed that the examination of students, for the degree of doctor in medicine, by an independent body, would be a gain over the present method. The difficulties, however, in constructing such a board, were very great.

With regard to the recommendation that a law should be sought making provisions that the plaintiff shall give bail for costs in suits of malpractice, the committee could only say that, while such legislation may be desirable, they do not feel justified in offering any opinion upon a question which requires legal knowledge.

THE TREATMENT OF VASCULAR NÆVUS.

DR. G. H. FOX, of New York, read a paper on the above subject, which was discussed by Drs. Sherwell of Brooklyn, and Bulkley of New York.

The following papers were read by title, and referred to the Committee of Publications: a paper relating to "Lunacy Reform," by Dr. Allan McLane Hamilton, of New York; "Domestic Pestilence," by Dr. Elisha Harris, of New York.

REPORT OF THE COMMITTEE ON NOMINATIONS.

The Committee on Nominations, DR. S. O. VANDER POEL, Chairman, submitted the following nominations as the unanimous action of the committee:

For President.—Dr. Wm. H. Bailey, of Albany.

For Vice-President.—Dr. A. Jacobi, of New York.

For Secretary.—Dr. Wm. Manlius Smith, of Manlius.

For Treasurer.—Dr. C. H. Porter, of Albany.

For Censors.—Southern District: Drs. J. W. S. Gouley, C. R. Agnew, and Austin Flint, of New York.

Eastern District: Drs. Ed. D. Ferguson, M. H. Burton, and W. S. Cooper, of Troy.

Middle District: Drs. Alonzo Churchill, S. G. Wolcott, and J. K. Chamberlayne, of Utica.

Western District: Drs. Thos. F. Rochester and Henry Lapp, of Buffalo.

Committee of Ethics.—Drs. Thos. Hun of Albany, E. M. Moore of Rochester, and C. R. Agnew of New York.

Committee of Publication.—Drs. Wm. Manlius Smith, H. D. Didama, of Syracuse, and Chas. H. Porter, Albany.

Committee on By-Laws.—Drs. Wm. C. Wey of Elmira, Alex. Hutchins, of Brooklyn, and C. A. Robertson of Albany.

Committee of Arrangements.—Drs. S. B. Ward, F. C. Curtis, and J. S. Mosher, of Albany.

Committee on Prize Essays.—Drs. E. M. Moore of Rochester, T. F. Rochester of Buffalo, and W. S. Ely of Rochester.

Committee on Hygiene.—Drs. E. V. Stoddard of Rochester, D. Guernsey of Amenia, Jacob S. Mosher of Albany, J. G. Orton of Binghamton, C. R. Agnew of New York, E. Hutchinson of Utica, and Harvey Jewett of Canandaigua.

Committee on Legislation.—Drs. H. G. Piffard of New York, Alex. Hutchins of Brooklyn, and A. VanDerveer of Albany.

Permanent Members.—First District: Drs. C. Henry King of Richmond Co., R. M. Wycoff of Kings Co., and H. G. Piffard, R. F. Weir, and H. Knapp, of New York Co.

Second District: Drs. R. K. Tuthill of Dutchess Co., and J. O. Polhemus of Rockland Co.

Third District: Drs. D. V. O'Leary of Albany Co., and F. S. Greene of Clinton Co.

Fourth District: Drs. P. R. Furbeck of Fulton Co., and E. M. Lyon of Clinton Co.

Fifth District: Dr. Ira H. Abell of Jefferson Co.

Sixth District: Drs. C. H. Heaton of Tioga Co., and H. R. Ainsworth of Steuben Co.

Seventh Dist.: Dr. M. D. Benedict of Onondaga Co.

Eighth District.—Drs. Jabez Allen, of Erie Co., and E. V. Stoddard, of Monroe Co.

Honorary Members.—Drs. John S. Billings, U. S. A.; Joseph B. Brown, U. S. A.; and W. F. Teevan, F.R.C.S., London, Eng.

Eligible to Honorary Membership.—Drs. Wm. Farr, of London, Eng.; T. J. Turner, U. S. N.; and Dr. Walter Carpenter, of Burlington, Vt.

DELEGATES.

To the Massachusetts Medical Society.—Drs. A. Van Derveer, of Albany Co.; J. V. Kendall, of Onondaga Co.; and Lewis H. White, of Dutchess Co.

To the Medical Society of the State of New Jersey.—Drs. J. C. Hutchinson, of Kings Co.; S. O. Vander Poel, of Albany Co.; R. Newman, of New York.

To the Vermont State Medical Society.—Drs. H. B. Allen, and D. S. Kellogg, of Onondaga Co., and G. C. Dodge, of Clinton Co.

To the Indiana Medical Society.—Dr. J. S. Bailey, of Albany.

To the Kansas State Medical Society.—Dr. Conant Sawyer, of Essex Co.

To the American Medical Association.—Drs. D. B. St. John Roosa, J. W. S. Gouley, John H. Hinton, of New York; J. C. Hutchison, of Brooklyn; C. C. F. Gay, of Buffalo; E. M. Lyon, of Clinton Co.; Theo. Dimon, of Cayuga Co.; J. V. Kendall, of Onondaga Co.; P. R. H. Sawyer, of Westchester Co.; W. Govan, of Rockland Co.; E. R. Squibb, of Brooklyn; E. D. Ferguson, of Troy; N. L. Snow, of Albany; C. S. Nichols, of Troy; B. F. Sherman, of St. Lawrence Co.; E. H. Parker, of Dutchess Co.; J. M. Bigelow, of Albany; H. R. Ainsworth, of Steuben Co.; C. H. Heaton, of Tioga Co.; T. B. Reynolds; H. S. Crandall, of Madison Co.; Darwin Colvin, of Wayne Co.; J. Kneeland, A. J. Dallas, and J. S. Dunlap, of Onondaga Co.; H. C. Hendricks, of Cortland Co.; William Oliver, of Yates Co.; Isaac Parsons, of Onondaga Co.; and H. N. Porter, of Oneida Co.

The President and Secretary were empowered to fill all vacancies.

All the officers were elected by an affirmative ballot cast by the Secretary.

Dr. L. D. Bulkley, of New York, introduced a plan by which the business of the Society could be largely transacted, and thus save the time for scientific purposes. It was referred to the Committee on By-Laws.

Dr J. V. Kendall, of Onondaga Co., moved that the thanks of the Society be tendered to the retiring President for the gentlemanly, impartial, and faithful manner in which he had discharged his duties as its presiding officer. It was unanimously carried.

The retiring President returned his thanks to the Society for the personal compliment, for the uniform courtesy extended to him throughout the meeting, and congratulated the Society upon the good work done.

The Society then adjourned to meet in the city of Albany on the first Tuesday in February, 1881.

Correspondence.

HIGH TEMPERATURE IN ACUTE PNEUMONIA—105°–110° F.—RECOVERY.

To the Editor of The Medical Record.

Sir:—I was called to visit Miss Laudengrauer, æt. 17 years, of stout build, light complexion, flaxen hair, lymphatic temperament, on evening of December 16th ult.

The thermometer registrations were as follows:

Dec. 16th.—9 P.M., 101½°.

(I will here state that I used several times two reliable thermometers, which perfectly agreed.

Dec. 17th.—11 A.M., 102°.

Dec. 18th.—Patient was neither visited nor reported.

Dec. 19th.—Messenger reported case at office, and medicine was sent.

Dec. 20th.—Called at 12.30 P.M. Patient worse in every respect; temperature, 105°; 8 P.M., 103°.

Dec. 21st.—9 A.M., temperature, 105°; 12 M., 110°; 4 P.M., 105°; 9 P.M., 103⅓°.

Dec. 22d.—Six A.M., 101°; 10 A.M., 100°; 1 P.M., 106°; 8 P.M., 101½°.

After this time, and until recovery was complete and my visits and examinations ceased, the temperature ranged from 96° to 100°, most of the time during convalescence being below 98°. The lung-tissue involved was the lower and middle lobes of the right lung.

The pulse once or twice, and for short periods during the most acute stage and suffering, ran as high as 150, and fell in convalescence as low as 56 per minute. Remedies used in course of the treatment were briefly as follows, viz.: hot or very warm wet flannels locally over seat of pain for first forty-eight hours (commenced by the nurse before I was called), improved comp. cath. pills, two, followed by Rochelle salts. The latter was repeated at various times through whole course of the treatment, in either cathartic or aperient doses, as seemingly indicated. Bromide of potassium was used in doses of gr. v.–x., number of doses per diem varying from two to eight, according to the cough and restlessness. Bicarb. sodæ was combined in solution with it when urine was scanty, or none voided for hours (diuretic doses). Sugar and calomel was given (sacch. alba, gr. x.; calomel, gr. i., triturated) on the sixth,

seventh, and eighth days; amount of bilious vomiting and high fever, followed by small loss of blood.

Cinchonidia sulphat was used during the whole treatment at intervals of from two to five hours, and in doses varying from gr. iij–viij. A few ordinary opiate doses were given during the course of the case, when the pain was too severe; sometimes the pulv. Dover, and sometimes the morphiæ sulphat, shortest interval of these doses being twenty-four hours.

Five doses of tr. gelsemii (W. S. Merrell's green root preparation) were given, the first, gtts. viij, on the sixth day, second dose, gtts. xvj, at 9 A.M., when temperature stood 105°, and in three hours thereafter, 12 M., had risen to 106°, 4 P.M., fallen to 105°, 9 P.M., 104°. At this latter named hour patient seemed fairly at the crisis, and under full influence of the gelsemium, short of toxic effect as described by Bartholow's Mat. Med.

Respiration slower than normal, showing partial paralysis of respiratory muscles, and patient prostrate, in very profuse perspiration. Patient also took of spirits turpentine, on sugar, gtts. xv. (single dose), on tenth day of illness, on account of the dry typhoid tongue and mouth. Water was given freely, as patient would, or desired to drink, at all times. For four or five days, during the height of disease or acute stage, scarcely any food was or could be taken. Milk was given freely when it could be taken, patient had a great dislike to its taste, although she took, on an average, two glassfuls per day after the seventh day of treatment. First craving, or appetite, at commencing improvement, was for oranges, which were allowed, and eaten ad libitum. Patient was often sponged with salt water of agreeable temperature during the periods of high fever. No urine was voided for eighteen hours after the administration of the second and last dose of *gesemium*. The catheter, however, was not demanded, bladder not becoming distended; the kidneys at fault or not secreting, soon and gradually resumed their function. Made my last visit and prescription to patient on 28th ult. She at this writing is dismissed from treatment and able to be about house in family circle.

Allow me to remark in conclusion, that, had I used the cold bath or wet pack in this case, I undoubtedly would have attributed the recovery to it. And further, that at every opportunity for the past eight years I have used the clinical treatment, and never before nor since have I seen it register 110, and 105 (except in intermittents) has always given me great concern, if not alarm. I once saw 107½ in a case of *pneumonia*, the patient dying within two hours thereafter.

W. Scott Marshall, M.D.

Locust Street Centralia, Ill.

UNPROFESSIONAL CONDUCT ON THE PART OF ATTACHES OF DISPENSARIES AND HOSPITAL OUT-DEPARTMENTS — A TRUE "DISPENSARY ABUSE."

To the Editor of The Medical Record.

Dear Sir:—There has been a great deal said and written about dispensary abuses, and I have come to the conclusion that they are not a myth; but I also believe that for the most flagrant abuses of this nature the medical attachés of the dispensaries and hospital out-departments are largely responsible.

Apart from the injustice of giving free advice to those well able to pay for it, and about which much has been said, there is a much more reprehensible practice sometimes indulged in at these institutions. I refer to the tone of censure, either direct or indirect, with which the previous treatment of patients seeking advice at them is too often commented upon. It not infrequently happens that patients leave these temples of wisdom and infallibility with the idea that their outside medical attendant has done them great injury. This is especially the case at those places where patients seek the aid of specialists, who, although often young and little experienced in their departments, are very apt to assume a sort of censorship over the outside medical public. Even if a patient seeking advice at a dispensary or clinic may not have previously received proper treatment, it is not proper, nor within the province of the attending physician or surgeon, to pass judgment upon it. He has simply to examine, make a careful diagnosis, and, if possible, cure his patient, without comment upon previous treatment.

What shall we say, then, when such an attendant not only directly censures the previous medical adviser of a patient, but at the same time, in acting upon his own opinion, commits an error which only the grossest carelessness or dearest ignorance could have rendered possible? The facts of the case which has led me to make these remarks are briefly as follows:

About the 17th of November last a married woman, in good general health, the mother of two children living, and two dead, and who had borne a child eighteen months before, was induced by a friend to seek advice at the out-department of one of our hospitals. She had passed two menstrual periods, and was nearing the third. She had never been irregular before, except when pregnant, and suffered now from leucorrhœa and an unpleasant pressure upon the rectum and bladder. Upon presenting herself, she gave to the attending physician the above history, and stated that she desired first of all to know whether or not she was pregnant, and, if not, to be treated for her symptoms. The physician made an examination, and told her that she was not pregnant, but that the womb was large and soft; that she was suffering from uterine catarrh; that this was the result of bad treatment after confinement, and that the cervix had been lacerated. He recommended hot injections, gave a prescription, and directed the patient to return in a week.

This examination was followed by some hemorrhage, and when the patient returned in two weeks, on December 1st, no further examination was made, but the patient was directed to continue the injections. A third visit was made on December 8th, when a second examination was made. After this examination, the physician reiterated his statement about the condition of the uterus, and stated that energetic treatment would be necessary to reduce its size—it now measuring, according to his description, six or eight inches in depth. He said that for efficient treatment it would be necessary for her to enter the hospital, and remain for some time. He did not suspect, evidently, how efficient the treatment he had already begun would soon prove in speedily "reducing the size of the womb one-half." It did not seem to occur to him that a much enlarged and soft uterus, in a healthy married woman who had not menstruated for three months, in connection, too, with leucorrhœa, meant, or *might* mean, pregnancy. He recommended, in lieu of her entering the hospital, that her physician (acting upon his superior suggestion) should frequently wash out the uterine

cavity. Am I wrong in inferring, in view of all this, that before arriving at this very exact diagnosis he must have explored the uterine cavity? And am I wrong in claiming that the flowing which began after the first examination, and which was followed on the 19th of December by the expulsion of a fœtus of three or four months, was due to either great ignorance or still greater carelessness? Let me briefly state that this was followed by a most violent rigor, during and after which the temperature rose to 105°, and it was only after the greatest and most persevering effort that I succeeded in removing a well-formed placenta.

The woman was in great danger, and only after her partial recovery did she make me aware of the facts above stated. Let me conclude by stating that the patient was in no sense a proper one for treatment at the institution she sought, as could have been easily ascertained upon inquiry, her husband being quite able and willing to pay his physician. Let me also say that, though I have often felt aggrieved at matters similar to the above, but of not so serious a nature, I have hitherto refrained from making them public, partly out of a desire to avoid hurting any one's feelings, and partly from that instinctive avoidance of unpleasant matters which most of us feel. This same feeling now induces me to withhold the name of the physician who, while carelessly or ignorantly imperilling his patient's life, did not hesitate to cast a slur upon a colleague; and leads me to conceal the name of the hospital to which he is attached.

S. Seabury Jones, M.D.

809 Lexington Avenue.

TRANSFUSION WITH DEFIBRINATED BLOOD.

To the Editor of The Medical Record.

Sir:—The interest awakened by the successful employment of defibrinated blood, *per rectum*, as a valuable auxiliary in the treatment of disease, leads me to call attention to the experiments of Prof. Ponfick,* which have not been recorded, to my knowledge, in any of our journals, and which seem to open a new sphere of usefulness for this agent. I allude to the intra-peritoneal injections of defibrinated blood, which Prof. Ponfick ranks as a simple and effective method of transfusion, devoid of the difficulties and dangers attending the ordinary procedure of transferring the blood directly from one person to another.

For some years back Prof. Ponfick, by way of experiment, had been injecting defibrinated blood into the peritoneal cavity of dogs, and noticed that the reaction following was hardly perceptible, while the absorption of the injected fluid was exceedingly rapid. Encouraged by these uniformly favorable results, he has lately employed this novel method of transfusion in three patients with perfect success, the only phenomena following the operation being a slight febrile movement and abdominal pain, both of very short duration. The quantity injected was 250 grammes in the first case, 350 in the second, and 220 in the third patient, and Prof. P. thinks that a larger quantity of blood can be introduced without any strain on the heart, lungs, or brain, owing to the gradual manner in which the absorption of the defibrinated blood is effected.

The apparatus employed is identical with that used by Prof. Thomas for intra-venous injection of milk, and the whole procedure consists in the introduction of the canula through the abdominal walls into the peritoneal cavity, and then allowing the required quantity of blood to flow in.

Should further experience with a larger number of cases be productive of the same happy results obtained by Ponfick, and the direct entrance of the injected blood into the circulation be established by ascertaining the quantity of red corpuscles in the patient's blood before and after the injection, this simple method of transfusion, requiring only ordinary skill for its performance, can be applied to many others than extreme and desperate cases, and defibrinated blood will fulfil an indication not second in importance to that of supplementary rectal alimentation, which, until now, it has so admirably served.

A. B. De Luna, M.D.

368 West Thirty-second Street.

* Med.-Chir. Rundschau, and Rev. de Med. y Cirugia de Madrid, Dec., 1879.

"VALVULAR DISEASE OF THE HEART."

Spasms in a Moribund Patient.

To the Editor of The Medical Record.

Sir:—In a recent issue of the Record, p. 88, Dr. Talbot Jones details a very interesting case of valvular disease of the heart, which presented this peculiar feature, that in a "moribund" patient with a feebly beating heart, failing circulation, and rapidly approaching dissolution, muscular spasms and convulsive movements occurred, so that "the elbow was raised from the bed, the leg was drawn up with considerable force;" the muscles of the face also exhibited "violent and fitful contractions." These spasms "recurred at intervals of three or four seconds," and resembled "the twitchings which would be produced by a galvanic current."

Dr. Jones is at a loss how to account for "these remarkable phenomena" under the circumstances, and finds the usual "possible explanations" unsatisfactory. In response to his inquiries, I beg to submit the following facts, which, I think, afford the necessary explanation of the situation.

Sir Astley Cooper has shown (Guy's Hospital Reports) that if the basal ganglia of the brain be deprived of their normal supply of blood, as by compressing the vertebral arteries, spasms and convulsions speedily occur. Kussmaul and Tenner also have shown, by numerous and interesting experiments, that so far from "a determination of blood to the head" being associated with convulsions, the very opposite is the case; and that defective blood-supply, and a consequent failure of functional activity on the part of the intracranial centres, are really the conditions which occasion spasms and twitches of the muscles.

Are not these the very conditions of the cranial circulation present in Dr. Jones's patient, brought about, not indeed by pressure on the vertebrals, but by failure of the heart, which had long been the seat of valvular disease?

The train of results would be as follows: Undue exertion at play, by causing unusual demand for blood-supply to the limbs and muscles, overtaxed the enfeebled heart, the "violent palpitation" of which was but the effort of a defective pump to propel at several strokes the blood it should have discharged at one.

Notwithstanding this increased effort and the heart's

apparent excitement (in reality defective power), blood does not reach the cranial centres in sufficient quantity to maintain the normal discharge of nerve-force (for it is a physiological law that the activity of an organ is dependent upon its receiving a due supply of arterial blood).—Dr C. B. Radcliffe). As a result, the respiratory centre is enfeebled, respiration is hindered, and cyanosis produced. There are giddiness and coma from defective power of corresponding centres. Among other functions of the medulla oblongata, vaso motor innervation is impaired, and the *dilating* power of the vaso motor nerves over the arterial muscle is withdrawn, permitting the gradual contraction of the calibre of the arterials, which is complete in death. As a result, more blood is excluded from the nervous centres, enfeebling them still more; the dyspnœa increases, and is probably not only aggravated by the failing power of the respiratory centre, but by the contraction of the pulmonary arterioles, the effort to overcome which leads to increased effort and further embarrassment to the laboring heart. Thus, there is not only defective blood-supply, but imperfectly oxygenated blood, reaching the motor nerve centres—two conditions quite incompatible with increased functional activity on their part, and obviously tending rather toward cessation of function.

During the process just described, it would be folly to suppose that the intra-cranial motor centres could be generating and discharging increased nerve-force, wherewith to "stimulate" the muscles to spasmodic contraction. On the contrary, motor nerve-force, as well as vital force, generally is in abeyance; and as the real function of the motor nerves is to *restrain muscular contraction*, this restraint being withdrawn, the muscles contract proportionately to their freedom, from their own inherent contractile power (as do in like manner the muscles of the arterial coats when freed from the domination of their vaso-motor nerves.) Hence the spasmodic muscular movements.

This is not the popular doctrine of the day. But it is in strict accord with the results of the physiological experimentation of Sir A. Cooper, Drs. Kussmaul and Tenner, Dr. Brown-Séquard, and others. Dr. C. B. Radcliffe, F.R.S., deduces from these experiments the proposition that "there is reason to believe that the power of muscular contraction is inversely related to the amount of nervous influence supplied to the muscles from the great nerve-centres." (Lec. on Epilepsy, etc., p. 100.) In other words, that muscular spasm and convulsion are prone to occur in proportion as motor nerve influence is withdrawn, as is seen in death from hemorrhage in certain cases of narcotic poisoning, and in such cases of exhaustion and dying as that under consideration. The doctrine is further strongly supported by the fact that our chief "antispasmodics" are stimulants to nerve-force, and that "stimulants" are the class of drugs which have proved most effectual in the spasm of tetanus.—(Dr. W. A. Hammond, Dis. Nerv. Syst., p. 541.) Such treatment would be preposterous on any other view of the case than that nerve-force is here enfeebled, and that the result is to enable the motor nerves more effectually to restrain the muscles.

But, if the foregoing views are correct, it may be asked why spasms and convulsions are not invariably the precursors of death? Because motor nerve-force is not necessarily extinguished in ordinary modes of dying, and usually even survives the somatic death of the body, restraining muscular contraction for a time, and when finally extinct—usually in a few hours—the muscles pass into rigor mortis, the inherent contractile power with which they are endowed yielding only to the molecular change of putrefaction. The reader must admit that motor nerve-force survives the general death of the body, in order to explain the very numerous and well authenticated cases of post mortem muscular contraction now on record.) See previous issues of the MEDICAL RECORD for September 13, October 25, November 1, December 13, 1879, and the writer's "Physiological Therapeutics," for further references to the views expressed in the foregoing.

I quite agree with Dr. Jones that the condition of his patient was incompatible with "exaggerated motor disturbance," and I believe that in defective blood-supply to the brain, with a consequent deficient innervation, failure of motor nerve-power, and freedom of the muscles to pass into a state of spasm—tonic or clonic in proportion to their freedom—will be found the true physiological explanation of the symptoms peculiar to his case.

Why the convulsive movements were limited to one side of the body, is a secondary issue the explanation of which is to be sought in local modifications of cranial circulation or innervation, and the subject is too obscure, in the absence of further data, for any attempt at elucidation.

Yours, etc.,

THOMAS W. POOLE, M.D.

LINDSAY (ONT.) CANADA, Feb. 2, 1880.

A SUPERIOR QUALITY OF GREEN SOAP, "SAPO OLIVÆ PREPARATUS."

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In the local treatment of certain chronic skin affections the value of the German *sapo viridis*, or "green soap," is too well-known to require comment. It has become extremely popular in this country, and there are few unofficinal remedies which are so extensively used. This widespread popularity is due solely to its therapeutic efficacy, and exists despite numerous objections to it which might be raised. Though purporting to be composed of potassa and olive-oil, it is commonly made, as many are aware, of hemp-seed, rape-seed, whale and other animal oils not always free from rancidity. Hence the offensive odor of the green soap which is commonly obtained in the market. The saponification of the soap is not always perfect, and it usually presents a streaky, variegated appearance. Its green color is artificial and due to the presence of indigo and other dyestuffs. It tends to harden on exposure to the air, and finally its alkalinity varies to such a degree as to render its effects more or less uncertain.

Some time ago my friend, Dr. Wm. K. Newton, suggested to me the use of a substitute in the shape of a soft olive soap used extensively in the manufacture of silk and other delicate fabrics. This I have tried and found to be a similar, though a far more elegant article than the ordinary sapo viridis. It is made from cold-pressed olive-oil, and owes its green color entirely to the chlorophyl of the olive. As manufactured by Mr. Bagoe, Pharmacist, of New York, it is of unvarying alkalinity, wholly free from unpleasant odor, homogeneous, and, unlike the common green soap, it gives a perfectly clear solution with strong or dilute alcohol. I have found it advantageous to add to the soap a small percentage of glycerine, which, while counterbalancing the natural

loss of free water, renders it a most agreeable preparation.

Hoping that your readers may derive benefit from the above suggestion,

I am very truly yours,

GEO. HENRY FOX, M.D.

NEW YORK.

"THE PINE RIDGE PRACTITIONER."

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Few articles, not strictly scientific, have had a place in your well-filled columns, which have elicited more interest and attention than the exquisite satire of the Pine Ridge Doctor and the communications which followed those of the "Successful Practitioner." While it is true that one critical correspondent of your excellent contemporary, the *Boston Medical and Surgical Journal*, was somewhat slow in discerning the point, I imagine that his vision was quite unobstructed after he read the letter of his appreciative fellow-contributor from Pau, France.

There can be little risk in predicting that the "Pine Ridge Practitioner" will hereafter be one of the fixed terms of our nomenclature, and that appellation will doubtless cling to many successful practitioners in many parts of the world, who practise "under the code." But the Hudson is not the only stream which has upon its banks such enterprising and conscientious practitioners. In proof of this statement, I will give some extracts from a volume in my library,* which I reread after "the experiences" were detailed in your pages. The author of this work lived in this city, and even at this day there could doubtless be found some in this portion of the world who follow the plan of the author and practitioner writing from Pine Ridge on the Hudson.

Our author addresses a letter to a young medical friend just entering practice, and regrets that while all the medical colleges have a lecturer upon the eye, the throat, the skin, and even upon the ear, there is not one whose duty it is to teach the noble art of getting practice. He then gives the following hints and suggestions to supplement the instructions his young friend has received:

"One of the common stock ways among the pushing fellows of the cities nowadays is to be in league with certain newspapers, and, too, by skilful management, frequently have their names in their local and personal columns; for instance, if you were called to an accident, you would manage to get it into the next day's paper, have it reported how the very skilful and popular Dr. J. Charlatan Greene was called in, and how much he seemed to sympathize with the poor sufferer, and with what skill he dressed the wounds, and what he said about the case, and here, if you throw in as many high-sounding technical phrases as possible, it will tell, for the less the public understand them, the more credit will they give you for wisdom and learning,

> 'For the dull world most honors pay to those,
> Who on their understandings most impose.'

But in the whirl and turmoil of a great city, once will not do to be spoken of, but keep your name before the public until, like that of Helmbold, John Bull, and other . . . . advertisers, the people will at last get it imprinted on their minds simply for the much seeing of it. I have known an instance or two where doctors were supposed to have driven over children in the streets in order to get their names in the papers in connection with the accident. I have heard it said of one very sharp fellow, that when his name had been too long absent from the public gaze, as he thought, he would lose his dog, and then advertise his dog, in connection with his name, in large capitals.

"Joining some church or other is another investment frequently made. Should you do this, pick out the most popular one with the fewest doctors in it. I have known some before now to change their church once or twice, hunting for the one, attachment to which would pay best. The old trick of being called out of church in the midst of the sermon is a very good one, which you might have repeated tolerably frequently—the old ladies will always notice it, and talk some about it after the service, and will be more apt to recollect you when they have a sickness at home. Always go into church late, when everybody is seated; you will thus be sure to be noticed by the congregation, and if you don't have a confederate to call you out during the preaching, you can leave just at its conclusion, as if compelled to hurry away on account of the urgency of your business. Standing in the doorway of the church, or just outside, and bowing to, and shaking hands with as many of the congregation who pass out as you can, is also very profitable in its way. It is a gentle intimation to the congregation that you are their representative in physic, and that it is their doctrinal duty to employ you. Your politics you may make equally subservient to your ends as your religion: these are the days men trade in both. . . . . When you have attended a case, and it has recovered by virtue of your treatment, or in spite of it, don't omit any opportunity of reminding your late patient and his friends of the fact, enjoining upon them the propriety of always remembering the bridge which has carried him over safely. When a man has employed you once, try to impress him with the idea that you have personal property in him, and that you shall be justly incensed if ever he shall change you for anybody else. On at any time learning that he has employed another doctor, go to him and ask him why he has ceased to employ you, and tell him that your feelings are hurt.

"Another art of great value is in certain cases where the opportunity presents to substitute a grave affection for a simple one in your diagnosis, express the most serious apprehensions as to the result, and allow the report to go out that Mr. A. or Mrs. B. is very dangerously ill. I have known some doctors never let an opportunity slip to magnify the danger of the disease and the value of their services; they gravely inform their patients that it was lucky they sent for them just when they did, for it was by their timely arrival and puissant intervention that a mighty fever was prevented, and if they had not gotten there just when they did, and done the peculiar things which they did do, the bellyache would soon have run into a *typhlo-enteritis with intussusception*, &c."

You will observe, Mr. Editor, that all these suggestions are also intended to accord with the letter of the code.

Hoping soon to see an announcement of the work on *Abrasions*, now in preparation by the "Successful Practitioner," I am, very respectfully,

A CONSTANT READER.

DANVILLE, KY., Jan. 25, 1880.

* Black Arts in Medicine, by John D. Jackson, M.D., Danville, Ky.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 1 to February 7, 1880

DE HANSE, J. V., Capt. and Asst. Surgeon. Granted leave of absence until further orders, on account of sickness. To take effect February 1, 1880. S. O. 26, A. G. O., February 3, 1880.

HANSE, C. B., Capt. and Asst. Surgeon. The leave of absence granted him December 20, 1879, from A. G. O., extended four months. S. O. 27, A. G. O., February 4, 1880.

CUNNINGHAM, Thos. A., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for one month's extension. S. O. 11, Dept. of Dakota, January 26, 1880.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 7, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Jan. 31, 1880...	0	3	54	3	234	52	0	0
Feb. 7, 1880....	0	6	51	0	240	34	0	0

A CURIOUS ACCIDENT. Dr. Z. E. Lewis, of Hunt's Point Road, Morrisania, New York City, writes: "You may be interested in an accident having lately happened to a patient of mine, which I think is unique. He had been raking over college experiences with some old classmates amid such hilarity that the tears had freely flowed, and found, on returning home, that one of his eyes was decidedly irritated. He could discover no foreign body, and, as the irritation was not extreme, he allowed thirty-six hours to elapse before consulting me. On everting the lower lid there appeared a hair like one of his lashes, or a fine hair of the beard, protruding from the lower punctum lacrymalis, about one-sixteenth of an inch, which, withdrawn, proved to have had more than two-thirds of its total length lying in the canaliculus. It was stiff enough to make considerable pressure upon the globe; its removal was followed by immediate and complete relief of all irritation."

OUTBREAK OF SMALL-POX IN A GERMAN PRISON. — In the penitentiary at Nangard, Prussia, fourteen prisoners were attacked with small-pox between the 12th of August and the 22d of September of last year. Most of those attacked had been employed in combing and spinning Russian hemp, while of a number of prisoners who were working on Manilla hemp in the same house not one was attacked. The Russian hemp used in the prison came from the department of Orel, which has been repeatedly devastated by small-pox of late years. As hemp is known to be a substance which retains the virus of small-pox for years in an active state, especially when kept secluded from the air, and no other source of contagion could be discovered, it was regarded as most probable that the disease had been conveyed to the prison in the hemp. In the Prussian regulations for 1885, hemp is classed with flax and tow as a poison carrier, but in the regulations for this year concerning the prevention of the introduction of contagious diseases into Germany, it is not included among the articles whose importation from Russia is forbidden. — *Lancet and Clinical Lect.*

FRENCH AND AMERICAN QUININE. — Dr. G. R. Black writes an interesting article in the *Cincinnati Lancet and Clinic* on the comparative value of French and American quinine. He noticed that the American quinine which he had been using, failed to produce the usual certain effects. He changed it for a French preparation, and got better results than ever before. Ten grains of this produced more powerful effects than fifteen of the old kind. Microscopic and chemical tests proved it to be purer also. As the general impression has been that foreign quinine is always inferior, the observations of Dr. Black are of considerable interest.

PORT PHYSICIAN AT BOSTON. — Dr. Swift, the Port Physician, having resigned, the Board of Health has promoted Dr. Woodbury, the Assistant Physician at the quarantine, to the vacant place.

LONDON LECTURE COURSES. — The Gulstonian lectures will be delivered this season by Dr. Gowers; subject, "Epilepsy." The Croonian lectures, by Dr. Cayley, on "Some Points in the Pathology and Treatment of Typhoid Fever." The Lumleian lectures by Dr. W. Roberts, on "Researches on the Digestive Ferments and the Preparation and Use of Artificially digested Food."

A CHEAP AUDIPHONE. — Dr. C. S. Turnbull, of Philadelphia, makes an audiphone similar to that of Rhodes, out of well callendered binders'-board. It costs but a few cents, and is quite as good as those of hard-rubber.

DEFENCE OF MAGENDIE. Dr. John C. Dalton has an article in the February number of the *International Review*, upon Magendie. He defends the character of that distinguished physiologist, and also makes a defence of vivisection.

LECTURESHIP AT RUSH MEDICAL COLLEGE. — At the *comamen* for the lectureship on Gynecology at Rush Medical College, held January 6th and 7th, there were six contestants. Dr. E. B. Ellis lectured on "Abscess of the Vulvo-vaginal Glands;" Dr. D. T. Nelson, on "Sympathetic Disturbances;" Dr. W. L. Ransom, on "Membranous Dysmenorrhœa;" Dr. D. C. Camp, on "Peritonitis;" Dr. A. J. Stone, on "Sarcoma Uteri;" Dr. R. S. Sutton, on "Dermoid Cysts." The choice lay between Drs. Nelson, Stone, and Sutton. The place was finally offered to Dr. Sutton, of Pittsburgh, provided he came to Chicago to live.

THE NEW ANÆSTHETICS. — Nitrous oxide and oxygen under pressure, the bichloride of ethidem, and hydrobromic ether, are the new anæsthetics which are now being tested. Hydrobromic ether is the last, and has been used with good results in a number of cases by Drs. Turnbull and Levis, in Philadelphia.

CHRONIC CONSTIPATION. — In a certain class of cases where the intestine is in an atonic condition, as in convalescence from fever, or in dyspepsia, Dr. Da Costa finds ext. belladonna fl. ℥ i. doses a most excellent remedy. In two cases related in the *Phila-*

delphia Medical and Surgical Reporter, the treatment was a tablespoonful of sweet-oil at night and a minim of the fluid extract of belladonna three times a day. The immediate good results were shown to be due to the belladonna.

Sea-water Baths.—The acknowledged value of sea-water bathing has inspired an enterprising company in London to supply that city with water from the English Channel. It is proposed to furnish it to every house for about $8 per year.—*Med. Press and Circ.*

Identity of Croup and Diphtheria.—An article by Dr. J. H. Stallard, in the *Western Lancet* for January, gives certain facts tending to show the identity of croup and diphtheria. The vital statistics in San Francisco during the last four years show that croup has increased and diminished in frequency in the same ratio as diphtheria. It also shows that the localities where diphtheria has most prevailed have been those where there has been the most croup.

Another Monstrosity.—A pair of female twins united from the breastbone to the lower part of the abdomen is reported from Bombay. They are nine months old and in good health.—*Med. Press and Circular.*

Celery as an Anti-Rheumatic.—Celery has always had some reputation as a nervous sedative. Its supposed efficacy in heart complaints has also long been a subject of facetious remark among the young at the dinner-table. It is now claimed that when cooked it is a preventive of rheumatism. When cooked it is a palatable dish, and, according to the *Louisville Medical News*, has a delicate flavor and a glutinous consistence like okra.

Dr. Richard C. Thomas, of Bowling Green, Ky., died on December 28th, in his forty-first year. Dr. Thomas was a skilful physician, and one of the leading members of the profession in Kentucky.

Defence of Opium-Smoking.—A consul at one of the ports of China thinks that opium-smoking is not so great an evil to the Chinese as is supposed. He says that the Chinese are remarkably free from bronchial or pulmonary complaints. Among the Christianized Chinese, however, who have given up opium, consumption is very frequent. There is no doubt that the Chinese are a very strong-lunged race. Whether the opium habit has anything to do with it or not, it is hard to say. The consul referred to has met numbers of apparently healthy-looking opium-smokers who began the habit to cure the "spitting of blood."—*Western Lancet.*

The Cure of Cataract by Electricity!—Under the head of science, a recent number of the *Churchman* has published a glowing editorial puff of a New York practitioner and electrician, well known to readers of this journal. It will no doubt delight members of the profession, and oculists in particular, to be informed, on the authority of the *Churchman* (which claims positive knowledge), that Dr. Neftel cures cataracts (what kind and what stage of development the *Churchman* omits to mention) by certain electrical manœuvres.

An Open Urachus.—Dr. John C. Pennington, Andover, Mass., writes: "I have at present under observation a case of retarded development which may be of sufficient interest to warrant its being made public. The patient is at present one year old. After birth the cord was tied as usual (by another physician) and separated on the third day, and shortly after one of the so-called 'granulation tumors' sprouted from the umbilicus, and has been there ever since. The physician in attendance wished to remove the growth by the knife, but was not permitted to do so. At present the little tumor is about the size and color of a medium sized raspberry, and presents a central aperture which will admit a silver probe to a distance of at least three inches. There is a certain amount of oozing, but, owing to the small quantity, and its being mixed with secretion from the surface of the growth, it has not as yet been possible to say with any certainty whether it be urine or not. If this be a case of *open urachus*, which seems probable, it is a very rare occurrence. Erichsen does not mention it, and Bryant has only seen one similar case. The child is healthy, and I should expect to see the canal close after a time, especially if the process is aided by stimulating its surface. I should be grateful for suggestions or experience on this subject.

Chloroform Deaths.—It is not easy to keep a record of all the cases of death from chloroform, so rapidly do they succeed each other. There is one reported now from St. John, New Brunswick. The patient was a boy of eighteen, suffering from an accident to the left foot. Only three drachms of chloroform were used. A post-mortem examination showed hepatization of the left lower lobe of the lung and congestion of the remainder of the lungs. The left side of the heart was empty; the right distended with blood. The coroner was of opinion that ether should have been employed.

A second death is reported as having occurred at the Chicago Eclectic College on the 3d ult. in the presence of the class. The patient was a robust young farmer, but exceedingly nervous. He was to have been operated on for necrosis of the tibia. Before he had been fully gotten under the influence of the anæsthetic respiration stopped and it could not be restored.

It seems likely that, with the record which chloroform is making for itself, its use will, except in particular conditions, be considered criminal.

Circular in Regard to Diphtheria.—The Boston Board of Health, following the example of other boards, has issued a circular for the purpose of more widely extending the well-attested facts about diphtheria, and of indicating the precautions to be taken for preventing the spread of the disease. These circulars are sent to all the secular papers, as well as distributed to individuals.

The White Mountain Medical Association held its annual meeting at Wells River, Vermont, on January 28th and 29th.

An Anti-Scorbutic.—During the long voyage of Professor Nordenskjold around the north coast of Asia, not a single case of scurvy occurred. This was due to the use of a small red berry that springs out of the ice and snow in the short summer. It is dried, mixed with reindeer's milk, and carried in a frozen state. It has a pleasant, slightly acid taste.—*Brit. Med. Jour.*

Modifications of the Politzer Method of Inflating the Middle Ear.—In inflating the middle ear, Dr. Holt employs a modification of Politzer's method, which does away with the swallowing of water. He directs the patient to fill the mouth tensely with air, while the air-bag is discharged as in the

ordinary way. Dr. J. O. Tansley, one of the clinical assistants at the Manhattan Eye and Ear Hospital, has modified Dr. Holt's method. He causes the patient to pucker up his lips and blow from the mouth while he forces air into the nasal cavity with the bag.

Counter Prescribing.—Mr. S. W. Gillespie, a pharmacist of Birmingham, Ala., offers the following suggestions regarding "counter prescribing:" "With reference to the article headed 'Doctor *v.* Apothecary,' which appeared in a recent issue of your journal, I desire to make a few suggestions, which I have never seen in any of the pharmaceutical or medical journals. An experience of over 25 years as apothecary and pharmacist warrants me in stating that nine persons out of ten who apply to the druggist for medicine do not ask for a physician, and it certainly is not a self-imposed duty for the druggist to force one on his customers and refuse them medicine because they won't seek the advice of the physician. He can recommend them to consult a physician first, but nothing more; this plan I have invariably adopted, but, unfortunately, with great pecuniary loss. The business of the apothecary is to supply the wants of his customers as promptly as possible, endeavoring to give the best satisfaction for value received without asking too many questions; and the poor druggist alone ought not to be saddled with the education of the public to seek a physician first before taking every dose of medicine he needs. It is in elevating the public mind to the necessities and demands of an independent medical fraternity that physicians must look for any redress to the seeming antagonism. The evil could be greatly mitigated if physicians would possess sufficient courage and manliness to recognize only the true apothecary from the numerous patent medicine humbugs and whiskeyites, thereby encouraging our pharmaceutical societies in their noble endeavors to wrest the profession of the pharmacist from out of its present accompaniments."

Regulating the Sale of Poisons.—The sale of poisons is intended to be sharply restricted by the provisions of a bill introduced into the Senate by Senator Astor, which proscribes the selling of arsenic, strychnine, and a variety of other poisons, except paregoric and preparations of opium containing not more than two grains of a poisonous substance, and except they are exposed in a particular kind of bottle labelled "Poison," and except also that it is sold on the prescription of a physician, and the entry on a book of the name, address, and occupation of the purchaser.

Dr. A. L. Bowditch has resigned his position as member of the Massachusetts State Board of Lunacy and Charities. He assigns as his reason the fact that the duties of the place are too arduous and exacting to allow him properly to carry on his private professional work. Dr. Bowditch was Chairman of the State Board of Health when it organized in 1869. He has been upon it ever since, and his retirement now is rightly considered a great loss. Dr. Fulsom is said to be a candidate for the vacancy.

The New York Microscopical Society held its Second Annual Reception on Feb. 6th, in the Sunday-school room connected with Dr. Bellows' church. A large number of microscopic objects were on exhibition. The retiring president, J. D. Hyatt, delivered an address recounting the microscopic progress, and the work of the Society during the past year.

An Appropriation has been made by the State Legislature to carry out the laws relating to the inspection and destruction of diseased animals.

Granting Powers to Medical Societies.—A bill was introduced into the State Senate, on February 6th, giving certain medical societies power to hold real and personal estate to the extent of $20,000, and the State Medical Society to the extent of $5,000.

A Petition against Lunacy Reform.—A petition, signed by a number of members of the medical profession, and protesting against any attempt at asylum investigation or reform, has recently been drawn up in this city.

The bill to initiate a better system of care for the insane is a wise, moderate, and unobjectionable one. We must assume, in deference to the intelligence and sincerity of the petitioners, that they were not aware of its character when they made their protest.

With a very large annual increase in the number of the insane, and the complexities of the question becoming continually greater, it is much to be regretted that any influential members of the profession have lent their names against a temperate and well-considered effort to improve the system of insane asylum management.

Neurotomy as a Substitute for Enucleation of the Eyeball.—Professor H. W. Williams remarks concerning this new operation, in the *Boston Medical and Surgical Journal*, that "neurotomy is probably of too recent application to warrant us in asserting positively that it will invariably be a preventive of sympathetic ophthalmia. Thus far, it has generally seemed effectual. Should any symptoms afterward manifest themselves, the operation might be repeated, to cut any nerve-filaments which possibly had escaped division at the time of the previous section. In case of failure as regards permanent relief, enucleation will still remain as an ultimate resort."

Dr. Le Moyne's Crematory at Washington, Pa., has been used again; this time on the body of a young lady of Allegheny City. She is the second woman who has been cremated by modern methods.

Books Received.

Transactions of Wisconsin State Medical Society. 1879.

Annals of the Anatomical and Surgical Society. Brooklyn, N. Y., Vol. I. 1878–1879.

Atlas of Histology. E. Klein, M.D., F.R.S., and Noble Smith L.R.C.P., etc. Part IX. Philadelphia: J. B. Lippincott & Co. 1879.

Pay Hospitals and Paying Wards, etc. By Henry C. Burdett. London: J. & A. Churchill. 1879.

How to Educate the Feelings or Affections. By Chas. Bray. Edited from Third London Ed., by Nelson Sizer. New York.

Brain-work and Over-work. By Dr. H. C. Wood. Philadelphia: Presley G. Blakiston.

Key to Ghostism, etc. By Rev. Thomas Mitchell, Brooklyn, N. Y. New York: S. R. Wells & Co., 1880. 12mo, pp. 249.

Transactions of Wisconsin State Medical Society, 1879.

Eyesight, Good and Bad. By R. Brudenell Carter. London: Macmillan & Co. 1880.

Reynold's System of Medicine. Edited by Henry Hartshorne, M.D., etc. Vol. ii. Philadelphia: H. C. Lea. 1880.

Original Communications.

NOTE ON CYSTORRHAGIA FROM RETENTION OF URINE.*

By JOHN W. S. GOULEY, M.D.,

PROFESSOR OF DISEASES OF THE GENITO-URINARY SYSTEM IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK; SURGEON TO BELLEVUE HOSPITAL, ETC.

When hemorrhage occurs from the mucous membrane of the bladder, the word cystorrhagia should be used in preference to hæmaturia, since the latter has a wider significance; being applied alike to the passage of bloody urine from the kidney, from its pelvis, from the ureter, the bladder, or the urethra. Cystorrhagia may occur as a consequence of disease, of injury, or of the too precipitate evacuation of an over-distended bladder. It is of the last-named cause that I now wish particularly to speak.

Civiale regards over-distention of the bladder as "the most common of all the causes of hæmaturia." This excellent observer says † "that when hæmaturia depends upon over-distention of the bladder by the accumulation of urine or by a forced injection, the blood seems to ooze indistinctly from every part of the mucous surface," but he does not explain the mechanism of this general oozing. Nor does Mercier, or any other author with whose works I am familiar, appear to solve the problem. I believe that generally there is no hemorrhage as long as the bladder remains distended; but the moment the distention ceases,—either by rupture of this viscus or by the too precipitate withdrawal of the urine or water through a catheter—the oozing begins, and this is due to rupture of thousands of the capillaries of the mucous membrane, owing to a sudden change in their condition. For in such over-distention of the bladder, the mucous membrane as well as the muscular coat is greatly over-stretched, its capillaries are likewise stretched and weakened in consequence. When, therefore, the mechanical support given by the accumulated urine is suddenly removed, the extreme tension of the vesical parietes is succeeded by extreme flaccidity; the almost empty capillaries are instantly gorged with blood, and their delicate walls give way before the sudden impulse of the refluent blood, which soon begins to ooze from thousands of minute rents of the mucous membrane.

It is well known that free hemorrhage often succeeds the escape of pus from large, tense abscesses that have been hastily emptied; and this phenomenon has generally and correctly been attributed to the too sudden removal of the pressure exerted by the pus upon the small vessels which lie almost naked on the wall of the abscess. If this be true here, why not so in a diseased bladder? The analogy is perhaps greater in those cases where hemorrhage has occurred from the surface of smooth membranes, such as that of the tunica vaginalis, after the sudden evacuation of large hydroceles, or as that of cysts of inordinate capacity which have been incised or tapped. The general oozing of blood, which sometimes occurs from the surface of a diseased peritoneum after ovariotomy, furnishes another illustration.

Since writing the above, I had occasion to read Horace Stapfer's thesis on vesical hæmaturia caused by tuberculization,* in which he credits Civiale with being the first to call attention to retention of urine as a cause of hæmaturia, but he says that "Civiale does not explain the mechanism of hæmaturia caused by retention of urine," . . . . and asks, "could it not be attributed to the sudden disparition of the pressure which the urine exerted upon the parietes of the bladder, similarly to the phenomenon observed after puncture of certain cysts of the thyroid body?"

I wish to be clearly understood as not claiming that hemorrhage invariably, though I believe it frequently, follows the precipitate evacuation of the over-distended bladder, for I have, on several occasions, suddenly withdrawn as many as four pints, and have read of one, and even two gallons being removed by the catheter without subsequent hemorrhage. The hemorrhages in question occur usually in middle and advanced life, especially where the vesical mucous membrane is not absolutely healthy, and in those patients whose blood-vessels are already weakening. Cystorrhagia from over-distention is very uncommon in young adults and adolescents, and of extreme rarity in children.

The explanation of cystorrhagia just given is applied more particularly to bladders which are not much altered by disease; but I have no doubt that hemorrhage does occur from distention of certain diseased bladders the moment the distention takes place, and this is shown in the first urine that appears, whereas, in the class of cases before mentioned, the first urine drawn is clear and entirely free from blood. In several such cases which Civiale cites he only incidentally states that the first urine expelled was always clear, and that blood appeared the next time the bladder was emptied. It is evident, in those cases, that the blood began to ooze only after the removal of the pressure exerted upon the capillaries by the urine. Mercier † makes a statement which corroborates this view; he says, "often two-thirds or three-fourths of the urine contained in the bladder come out free from blood, and it is only toward the end that the fluid appears redder and redder;" and he further says that "this appearance has been wrongly ascribed to the precipitation of blood in the basfond." He himself attributes the hemorrhage to the action of the muscular coat of the bladder, which, he says, fairly squeezes the blood out of the congested mucous membrane like water squeezed out of a sponge. Unfortunately, for this theory and for patients, the very reverse of contraction too frequently follows the sudden evacuation of the bladder. If powerful contraction could always follow the precipitate evacuation of the over-distended bladder, there would be no hemorrhage, or, if any occurred, it would soon cease, in consequence of this contraction of the muscular coat, and of retraction of the mucous membraue, and of its underlying connective tissue.

In chronic cystitis with sclerosis of the mucous membrane, retention of urine, giving rise to comparatively little distention of the bladder, will cause hemorrhage from cracking or tearing of the unyielding mucous membrane, and the first urine drawn will be bloody. Hemorrhage doubtless follows distention from accumulation of urine in other diseased conditions of the bladder, such as papillomatous, tubercular, or cancerous degeneration, etc.

A word here concerning diagnosis may not be out of place. The main point is to determine whether or

* Read before the Med. Soc. of the State of New York, Feb., 1880.
† Maladies des organes génito-urinaires, vol. iii., p. 360.

* Paris, 1874, pp. 8, 9.
† Recherches anatomiques, pathologiques, etc. Paris, 1844, p. 141.

not the hemorrhage be cystic, for the bladder may become filled with blood which has come from another source. For instance, there may be free bleeding from the kidney (nephrorrhagia), due to a laceration of the organ, to a vascular cancer which has finally involved its pelvis, to tubercular disease; or, the hemorrhage may be owing to extreme congestion, as that occurring after the ingestion of certain poisons—among others phenic acid, or, from prolonged exposure to the fumes of turpentine on turpentine ships or in shops. Within a couple of years I have had two cases of such hæmaturia, whose diagnosis was cleared by a few questions. Both men were workers in a varnish factory, and, for several weeks, had been passing bloody urine. They were advised to stop work, and, in a short time after, the urine became clear. My attention was called to this action of the fumes of turpentine many years ago, by the late Dr. Charles E. Isaacs.

There may be from the pelvis of the kidney very abundant and continuous hemorrhage. When this pyelorrhagia is the result of cancerous degeneration, it will not be long before the diagnosis is verified by an autopsy; but when it arises from other causes, such as parasites, it may remain obscure for a long time, if not altogether, unless careful and frequent microscopic examinations of the fluid be made. In other cases the diagnosis may be easy. One of my patients almost always, after drinking one or two glasses of champagne, suffers from hæmaturia (probably nephrorrhagia and pyelorrhagia) for two or three days, and, in the very bloody urine that he passes, is able to collect fifty or sixty round uric acid calculi, the largest of which scarcely exceeds in size an ordinary pin's head. The hemorrhage may be from the ureter (ureterorrhagia), and may be caused by a rough calculus during its transit from the renal pelvis to the bladder. The urine passed by such a patient sometimes contains long, leech-like clots, and this fact, taken in conjunction with the general symptoms, leaves no doubt as to the origin of the hemorrhage. In a case of very persistent hæmaturia, I was able to determine the source of the hemorrhage from the several circumstances presently to be stated. The first was, that no retention of urine had occurred; the second, that the urine ordinarily contained at least two-thirds blood; the third, that it was at times perfectly clear; the fourth, that the hemorrhage would be preceded by a very distressing ureteric and pyelic colic on the right side; and the fifth, that the urine frequently contained firm bdelloid clots five or six inches long. These facts, together with the existence of a tumor in the right flank, led me to regard the case as one of ureterorrhagia, due either to an impacted calculus, or to malignant disease. The patient died in the course of a few months, and the autopsy revealed a very vascular, primary cancer of the right ureter, a little above its middle.

I have said that the bladder may be rapidly filled by blood coming from some one of the sources before named, but if the blood does not as rapidly coagulate, it will be expelled; and if by good luck its flow into the bladder be checked, as was shown in the case of cancer just mentioned, by impaction of a clot in the ureter, there will follow ureteric and pyelic colic, and while this lasts, the urine secreted on the sound side—at first tinged by the little blood remaining in the bladder—will come away clear, and as soon as the impacted clot is dislodged and carried into the bladder, the urine will again be bloody. It may be proper to syringe out the bladder during the ureteric colic, in order to wash away the remaining blood, —then if the water afterward injected comes away clear, it is reasonable to suppose that the hemorrhage is not cystic.

But if the hemorrhage has been so abundant as to cause great distention of the bladder, with clots, the case will be attended with a twofold danger, and the prognosis may be unfavorable; for if then the distended bladder be suddenly evacuated, there will probably be hemorrhage from its mucous membrane in addition to the bleeding which may have come from the ureter, renal pelvis, or kidney. When all the sources of hemorrhage already indicated have been excluded, and the loss of blood is not from the urethra (urethral hemorrhage can be at once diagnosticated by passing a catheter into the bladder. If, after the first ounce or thereabouts, the urine drawn be limpid, it is certain that the blood which had previously escaped had not come from the bladder. In some cases of hemorrhage from the deep urethra, the blood often enters the bladder, but this is easily made out)—then its vesical origin is fairly established.

Cystorrhagia is known to occur from ulceration of the bladder, from injuries inflicted by the movements of a calculus, from some forms of acute and chronic cystitis, from the perforation of small veins by certain parasites, from tubercular or cancerous disease, from papillomata, and from violence; but in the class of cases under consideration, retention of urine is its principal factor in certain instances of diseased, while in comparatively healthy bladders, or in the atonied bladders of elderly men with prostatic enlargement, its most frequent exciting cause is the sudden withdrawal of the urine by which the organ had been greatly over-distended.

The first urine drawn, as before said, is usually clear and free from blood, the second is blood-red; afterward it grows dark and dingy, until it becomes chocolate-colored, and finally assumes a tarry appearance and consistency, and acquires a disagreeable odor similar to that of decayed, dried codfish. These changes in the character of the blood are due partly to the action of the urine, partly to the admixture of mucus, of which there is hypersecretion, and to the development of ammonia. In such cases the effusion of blood is considerable, but not always sufficient for the formation of coagula; for as long as there is a fair proportion of urine, no coagulation takes places, but when the flow is rapid and exceeds the urine in amount, the bladder will soon be filled with clots, even to great over-distention. Cystorrhagia may last from a few hours to two or even three weeks if not checked by appropriate treatment.

The constitutional effects will, of course, depend upon the previous physical condition of the patient, the amount of blood lost daily, and the extent and severity of the ensuing cystitis. Prompt and intelligent interference will soon arrest the bleeding and generally save the patient. The danger to life is not so much from the severity of the hemorrhage as from the extent of injury to the capillary vessels and mucous membrane. What is here most to be dreaded is the supervention of general cystitis, which is so apt to be followed by double ureteritis and pyelonephritis. When these complications have occurred there is oliguria, then anuria which is soon followed by a typhoidal condition, with low muttering delirium, and death, all within a week or ten days after the first evacuating catheterism that had given issue to three or four pints of clear urine.

Perhaps the recital of the history of a typical case of cystorrhagia from the too precipitate evacuation of a distended bladder, taken from my note-book, will illustrate several important points that I may have failed to make plain.

On September 2, 1875, I saw, in consultation with a medical gentleman, in a neighboring city, Mr. S. B., aged sixty-three, who had "for ten years suffered more or less from his bladder," and had had occasional attacks of retention of urine, all owing to prostatic enlargement. Two years before our interview he had a retention of urine, relieved by the catheter which caused considerable urethral, but no vesical hemorrhage. On the evening of August 23, 1875, while sitting upon the stone steps in front of his house, he felt chilly, but thought little of this and went to bed at his usual hour. On rising in the morning he experienced trouble in voiding his urine, and was finally unable to pass a single drop. His bladder having become painfully distended in the course of twenty-four hours, he summoned his physician who relieved him at once, by the catheter, of about three pints of clear urine. A second catheterism, on the same day, gave issue to bloody urine, and from that time all the urine drawn off was highly charged with blood. On account of the persistence of the hemorrhage, the doctor requested me to see his patient. When I arrived at the house (at 3 P.M.) I found Mr. B., a pallid, slender-built man, walking the floor nervously, and in great agony from distention of the bladder, though the doctor had drawn off his urine in the morning. His general condition was fair, and he had had no febrile reaction for a week. On digital examination per rectum, the prostate was found tumid but not very large. A metallic catheter of short curve, similar to Mercier's, encountered a median prostatic obstruction, which was easily surmounted. A soft rubber Nélaton catheter, which was then introduced, gave issue to a pint and a half of fetid, thick, alkaline, tarry fluid, consisting of about an equal amount of blood and urine, but the blood was thoroughly mixed with the urine and there was no coagulum. I expressed the opinion that the blood had probably oozed out of numerous minute vessels from a considerable extent of the vesical mucous membrane. The doctor said that, at first, the hemorrhage was much more profuse, and that there were clots which frequently closed the eye of the catheter. Inasmuch as the bleeding had thus far been kept up by the frequent distention of the viscus, I suggested, as the prime indication in the case, complete drainage of the bladder for, at least, twenty-four hours. This was effected by introducing, and retaining in position, a gum-elastic Nélaton catheter. An occasional vesical injection of two ounces of weak tannin solution was also advised, likewise ice in the rectum, absolute rest in the recumbent posture, and twenty-grain doses of quinine dissolved in dilute sulphuric acid. The doctor had already given twenty-minim doses of fluid extract of ergot, and I advised their continuance. He had also irrigated the bladder with salicylic acid solution, with the effect of deodorizing the urine temporarily. From the time I introduced the catheter no more urine was allowed to accumulate in the bladder, and the blood was frequently washed away with the styptic solutions. This course of treatment had the effect, within two days, of arresting the hemorrhage and of controlling the consequent cystitis. I saw the patient in the course of two months, when he said that he felt as well as usual. Three years after, he had had no recurrence of hemorrhage.

PREVENTIVE TREATMENT.

If sufferers from prostatic and vesical trouble were always under the watchful eyes of intelligent physicians, their bladders would not be permitted to become over-distended, and this one cause of cystorrhagia would not exist. But as over-distention now occurs so frequently, let us see in what way relief may be given and cystorrhagia prevented.

Nothing can be more simple; the bladder should be emptied very gradually in the course of twelve, twenty-four, or forty-eight hours, and in certain extreme cases, even several days (as suggested by Sir Benjamin Brodie).* One of the ways of accomplishing this is to introduce a soft catheter and secure it in position, then to allow the urine to trickle through it slowly by partially obstructing † the distal orifice with a finger, so that in the course of five or six minutes not more than eight ounces will have escaped; and to repeat this every two hours until the bladder is emptied. If the urine drawn be very fetid, the process should be modified as follows: immediately after drawing the first half-pint of urine, eight ounces of warm water, in which has been dissolved a scruple of biborate of soda, should be injected into the bladder, then a pint of urine drawn, and at once half a pint of borax solution thrown in. This should be repeated at the first sitting six or eight times, or until the whole of the offensive urine is gotten rid of, and the bladder contains nothing but the clear borax solution; then every two hours, and in some cases even every three hours, half a pint of the fluid—now mixed with newly secreted urine—should be drawn off, until the bladder is completely empty. In this way a bland fluid will have been substituted for decomposed and irritating urine, the hydrostatic pressure will not have been removed too suddenly, and thus cystorrhagia will have been prevented.

Sometimes polyuria follows the first catheterism to such a degree as to make it necessary to draw off one instead of half a pint, and do this every hour instead of two hours, otherwise the vesical distention would be unrelieved. To illustrate this point, let me relate the history of a case of inordinate polyuria without glycosuria. I have never known a patient to secrete so much normal urine in the same space of time.

Mr. P. D., æt. 67, stout, weighing about 200 lbs., suffering from prostatic hypertrophy and stone in the bladder, was sent to me by a medical friend early in March, 1879. Mr. D. had, at different times, for a period of twenty years, passed gravel and also well-formed small uric acid calculi. He was subject to polyuria which would be caused by almost any diuretic. He could never take cider, ale, tincture of the chloride of iron, copaiba, or cubebs, without provoking great increase in the urinary secretion. For six consecutive weeks he passed four pints of urine daily, and for two additional weeks, six pints daily. At the end of that time—that is, March 1, 1878—his bladder became over-distended, and the urine came away guttatim. On this account he was catheterized, and three pints of clear urine drawn in the first hour at intervals of twenty minutes. The catheter was tied in position, and one pint of urine was drawn off every hour for twenty-seven consecutive hours, when the amount began to diminish until it was reduced to six pints every twenty-four hours. In the

* Brodie: Lect. on Dis. of Urinary Organs. London, 1835, p. 161.
† Civiale.

course of about three months it was gradually reduced to four pints, and so continued until March, 1879, when I relieved his bladder of the irritation which had been caused by several small stones. When he left the city, toward the end of March, he was making three pints of urine daily, and was in excellent physical condition.

TREATMENT OF CYSTORRHAGIA.

When cystorrhagia has taken place, besides enjoining absolute rest in the horizontal posture, the surgeon should take means to prevent the bladder from becoming distended with bloody urine. But if, when he arrives, he finds hypogastric dulness extending to or into the umbilical region, he should draw off, through a gum catheter, only a pint of urine, then throw in half a pint of the borax solution as mentioned under the head of preventive treatment—and draw half a pint of fluid, and repeat the process until the fluid becomes clear, or nearly so. Afterward, every hour or two hours, the stopper of the catheter should be removed, and half a pint of fluid allowed to flow, until the bladder is completely empty. For that purpose, the catheter should be retained in position twenty-four hours, very rarely longer. This drainage alone will often have the effect of checking the hemorrhage, especially if the muscular coat of the bladder soon begins to regain its contractility, which can be sometimes hastened by occasionally throwing in two or three ounces of weak, cold watery solution of tannin, of alum, or of almost any other astringent. Ice in the rectum, applied according to the plan of Cazenave, is a valuable adjuvant.

The next indication is to guard against general acute cystitis, the supervention of which would be the most serious accident that could well happen in such cases, except, of course, rupture of the bladder.

Hemorrhage is more apt to recur in cases of pre-existing atony of the bladder. Therefore, it is important to begin to treat this atony as soon as the bladder has been emptied.

When cystorrhagia occurs in cases of cystitis, with sclerosis of the mucous membrane, whether the distention be caused by retention of urine or by a forced injection—which latter is sometimes used in their treatment—drainage is essential; no urine should be allowed to accumulate, and styptic injections in small quantities should be employed, and gallic acid, or some of the other hemostatics, will be indicated. In such cases the hemorrhage is not usually abundant. The danger lies in the aggravation of the cystitis.

The most serious hemorrhages are those which occur from papillomatous or cancerous tumors. I have a specimen of the former, in which hemorrhage was the immediate cause of death.

Although so great an authority as Civiale seems to attach little importance to general treatment, I am sure you will agree with me that it has its utility, and should not be rejected. I would recommend the exhibition of ergot (15 to 20 minims of the fluid extract every two or three hours), or of gallic acid, dissolved in glycerine, or of quinine, with an equal quantity of dilute sulphuric acid, or of tincture of the chloride of iron, etc. All these medicinal agents have their value, and any one of them will often answer the purpose. But when the desired effect has been obtained, the dose should be reduced, and the medicine discontinued as soon as possible, otherwise the digestive organs will surely suffer.

When it happens, in cystorrhagia, that no fluid runs through the catheter after it has been successfully introduced into the bladder, it may be that a clot has become impacted in the catheter, or that the bladder is filled with coagula, and little if any urine.

What, in like circumstances, should be the conduct of the surgeon? He should withdraw the catheter, and if he find in it a clot, wash it out, or take a clean catheter and introduce that, and if there be fluid blood and urine, it will of course flow freely. But suppose the bladder to be filled with clotted blood, what then is he to do? In this there is a difference of opinion.

Chopart advises the injection of water through the catheter to break up the clots, and if they do not come away, to introduce into the distal end of the catheter the nozzle of a syringe with which to make aspiration of the broken-down clots, and cites several cases in which this was successfully accomplished. A number of his contemporaries had like successes. Howship, and also Sir Benjamin Brodie, advocated this process.

Phillips cites Leroy as having extracted a little more than four pounds of coagula from a man's bladder, with the aid of aspiration made through a catheter which he was obliged to introduce one hundred and fifty times in the space of six hours.

Though Civiale approved of repeated injections of warm water to soften or dissolve the clots, as recommended by Verdier, he condemned aspiration. Other modern surgeons are against aspiration of the clots, but their objections are not tenable. The principal objection made is, that the removal of the clots will excite fresh bleeding either by affording a cavity into which more blood may be poured, or by allowing the plugs to escape from the torn extremities of the capillaries. They also urge that the clots do no harm, and will, in a couple of days, be dissolved by the urine. It is a misapprehension of the true state of things that has led the opponents of aspiration to condemn this practice, inaugurated as it was by some of the best surgeons of the last century. Injections and aspirations properly done, cannot and will not give rise to fresh bleeding; it is the hasty removal of the contents of the bladder, as I think I have shown, that will provoke hemorrhage, and it is the very thing which every good surgeon should avoid. It is not good surgery to allow a bladder to become over-distended with blood and then to wait forty-eight hours for the urine to dissolve the clots, while the patient is in the throes of vesical distention and tenesmus. I think that in such a case the indications *for* mechanical interference are exceedingly plain. But, I repeat, the vesical contents must *never* be hastily removed, otherwise there will necessarily follow fresh hemorrhage. In endeavoring to free a bladder greatly distended with clotted blood which cannot pass through an ordinary catheter, the way to proceed is to use a soft catheter with one large eye, or a metallic Mercier catheter as large as can be introduced, then to inject two or three ounces of warm borax solution (diluted acetic acid has been recommended for dissolving clots); if nothing flows, the instrument should be moved gently to and fro and rotated to the right and left so as to break up the clots; then aspiration made either with a syringe, as recommended by Chopart, or with Bigelow's rubber-bag. No attempt should be made to aspirate more than three or four ounces of clots, or grumous blood, at a time. The surgeon should continue, at the same sitting, to make alternate injections and aspirations, never with-

drawing more than he has injected, so that the contents of the bladder will remain about the same, until all the blood has been removed and the returning liquid is nearly clear. After this, every hour or two hours, as the case requires, a few ounces, rarely more than eight, should be drawn off until the bladder is empty. Gallic acid or other agents can, in the meantime, be administered, and afterward the bladder may be irrigated with such astringent solutions as are necessary. I feel quite sure that such a course would not only prove efficient, but much safer than the expectant plan just referred to.

"When the coagula are not dissolved," says Paul of Aegina, "make an incision in the perinæum as in cases of calculus; and having removed the clots of blood, accomplish the cure in a proper manner." This operation of perineal cystotomy was revived by Larrey and others of his time, in cases where the clots were too dense to be broken up by the catheter. The operation is reported to have been performed under the auspices of Sir Astley Cooper, by Mr. Copeland Hutchinson, with the result of extracting a pound of coagula, but the patient died in three days. Civiale very properly condemns this heroic and ordinarily unjustifiable procedure, and suggests in its stead the employment of the lithotrite to break up the clot when it is too dense to be reduced by the catheter or aspirator.

THE PROVIDENT-DISPENSARY SYSTEM AND THE ABUSES OF MEDICAL CHARITY.

By C. L. DANA, A.M., M.D.,

NEW YORK.

It is known that a very large number of the persons who receive gratuitous medical relief at dispensaries are not deserving of such charity. It is estimated that nearly one-half could pay a respectable fee if they chose, and a still larger proportion could pay if they were provident.

This whole matter has been much more carefully studied in England than in this country. The facts collected as to the abuses there are somewhat startling, yet they represent to some extent our own condition, and are therefore worth repeating.

At Queen's Hospital, Birmingham, it was found, in 1878, that ten per cent. of the out-patients could afford to pay a doctor's bill, in lump, of four or five pounds. Two-thirds of these same patients were able to pay for medical relief under the provident plan. At the Royal Free Hospital, London, only twenty-six per cent. of the out-patients were fit objects of medical charity. Other out-patient departments, when investigated, revealed a similar state of affairs. In London it is estimated* that one in four of the whole population receives gratuitous medical advice when ill; in Birmingham the proportion is 1 to 3.6; in Liverpool, 1 to 2.

Further than this, there is every reason to believe that the practice of resorting to free dispensaries is rapidly increasing. In Birmingham the increase in the number of out-patients from 1867 to 1876 was 50 per cent.; the increase of population was only 13.8 per cent. This is no exception to the experience of other towns, and it is safe to say that it fairly represents the state of things in many of the large cities in the United States.

* H. C. Burdett: "Pay-Hospitals of the World."

It will be readily acknowledged that the results of such indiscriminate medical alms-giving are demoralizing to the recipients as well as disastrous to our profession. I do not propose to enlarge upon these points, but to give some account of a system that has been proposed, and, to some extent, tried as a remedy for the increasing evil.

For many years there have been in England what are known as Benefit, or Friendly Societies. These are guilds composed chiefly of workingmen. They pay annual dues, and out of the fund thus created a doctor is hired, who treats the members when they are sick. These institutions are limited in membership, however, and embrace but a small part of those needing medical relief, yet unwilling to be classed as paupers. Something with a wider scope was needed, and therefore the provident-dispensary system was introduced.

Provident dispensaries have existed in a few of the smaller cities of England for over forty years. Institutions of a similar kind have also existed for a long time in Germany. There the workmen in certain towns support their own hospital and dispensary. These provident dispensaries are simply mutual health associations. They embrace only those who do not earn over a certain small sum—say $10 per week. Annual or monthly dues are required. When a member is sick, he receives medical attendance free. He may even have a nurse provided for him, and, in case a hospital is necessary, arrangements are made which allow him to be taken there.

Provident dispensaries on the above plan first began to be prominently advocated in England about twelve years ago.

At a meeting of medical men, held in London in 1867, over which Sir William Ferguson presided, it was voted the opinion of the meeting "that the evils above referred to could be, in a great measure, met by the establishment on a large scale of provident dispensaries, not only in the metropolis, but throughout the kingdom, and by improved administration of poor-law relief." In 1871 the matter was again agitated, but it was found that the influence of the free dispensaries and out-patient departments of hospitals was a very great difficulty in the way of accomplishing anything. In the next four years, however, fifteen provident dispensaries were established and kept in good working order. An investigation during this time showed that about half the out-patients at hospitals had an income of from $5 to $7 per week.

In 1877 further action was attempted by a meeting in London, presided over by Dr. Acland, of Oxford. Many prominent laymen were present, as well as such medical men as Sir Wm. Gull, Sir Wm. Jenner, and Mr. Erichsen. The principal resolution was carried unanimously, namely: "That . . . while, on the one hand, out-patient departments should be regulated so as to secure the prompt treatment of cases requiring the special resources of a hospital; on the other, free dispensaries should be converted into provident dispensaries, and new provident dispensaries should be established in proportion to the wants of the population." A committee appointed at this meeting, of which Mr. Timothy Holmes was chairman, drew up a new and revised set of model rules for provident dispensaries. They also circulated a large number of tracts upon the subject.

In the summer of 1878, the authorities of St. Bartholomew's Hospital investigated the abuses of out-patient charity. They condemned the present system as "inadequate and unsatisfactory." They agreed that the establishment of a localized self-supporting

system of provident dispensaries, in subsidiary relation to the hospitals, would be an indispensable part of any scheme that might be proposed.

A third large meeting was held in the same summer to further this movement. Efforts were then initiated to secure the co-operation of the various benevolent societies of the city in forwarding the provident dispensary plan. It was proposed to organize a Metropolitan Provident Dispensary Union, with branches throughout the city. At a subsequent meeting in June, 1879, it was announced that this system of provident dispensaries was endorsed by most of the benefit societies and unions, as well as by the council of the Hospital Saturday Fund. A committee was appointed to draw up a plan for a Metropolitan Provident Dispensary Association, with branches throughout the city. This committee met in July, and organized a sub-committee to draft the specific plans.

Meanwhile, the British Medical Association, last summer, appointed a committee to examine and report on the Provident Dispensary System. Of this committee, Mr. T. Holmes is chairman. The editor of the *British Medical Journal*, Mr. Hart, has been active in forwarding the movement.

During the last few years, numerous provident dispensaries have been springing up in various parts of London, as well as in the provincial towns. A synopsis of the annual report of one of these will give an idea of the workings of the system.

The Salisbury Provident Dispensary, in its second year, announces that it received in dues $4,815. It has a membership of 6,200. In 1878 it divided $3,175 among its ten medical men. A comparison of reports shows that the memberships vary from 2,000 to 6,000. The members pay from 1d. to 4d. a week; 2d. a week is considered the proper sum. The cases of sickness per annum are generally about equal in number to the whole membership. The expenses vary, but it seems that when the receipts amount to the equivalent of about a dollar a year for each member, the expenses, including a moderate sum to the doctor, are covered. The membership is confined, as a rule, to those receiving weekly wages, *i. e.*, about £2 per week, and from that down. The medical officers receive one-half the entire receipts, and, in addition, £1 for each midwifery case, and two-thirds of any surplus that may remain after the expenses are paid. Medical men, honorary and provident members, form a committee of management.

Provident dispensaries, organized under such a plan as this, have received wide endorsement from philanthropists, medical men, and charitable organizations, and under the encouragement thus given, they are increasing in numbers every year. The great enemy to success in all cases has been the out-patient department of the hospitals. It has appeared most desirable that these institutions should co-operate with the provident organizations, making the latter auxiliaries and supplements to the former. This has actually been done at the Royal Albert Hospital, Devonport, and at the hospitals in two provincial towns; at these places, provident dispensaries flourish near to and under the countenance of, the hospitals.

In this country, so far as can be learned, New York city is the only place where, until lately, the subject of the abuses of medical charity has been agitated with the end of securing a practical remedy.

In 1877, the Public Health Association of New York appointed a committee to consider the practicability of introducing provident dispensaries. The matter was elaborately discussed, but no result came from the agitation. In 1877-8 the St. John's Guild appropriated $100, to see what could be done in the way of establishing the system. The English methods were but partially adopted, however, and a history of the movement would explain its failure.

As regards other methods of securing reform, in 1876 the New York Dispensary began to charge its male venereal patients ten cents for each prescription. In 1878, at the recommendation of Dr. Sturgis, this plan of charging was extended to all cases. A like system has been introduced into several other of our city dispensaries. The results have been to furnish sufficient money to pay for the medicines prescribed, and undoubtedly to keep away some persons who do not require medicine, or who, finding they have to pay a little, prefer to go to the doctor's office and pay the regular fee.

The pay system at free dispensaries, however, goes but a very little way in securing reform. In English practice, it has been found neither to cure abuse or lessen the number of applicants.* On the other hand, it introduces fresh evils, among which are the practice of begging money from house to house, and of lying, in order to get rid of paying the required fee. In addition to this, free dispensaries are established for those who cannot pay, and it is a violation, to a certain extent, of their original purpose to enforce the fee system. There is also a danger that the patient who pays ten cents, may go away with the feeling that he has returned an equivalent for the service rendered. It is not desirable to cultivate the impression that a medical service is of so little value.

There are now in this city a considerable number of benefit societies or unions, which hire a doctor to treat their members.

There have been efforts also to establish so-called "provident dispensaries" on a small-fee basis. The patient who applies, pays twenty-five cents, and gets treated once; or he pays one full fee, and gets treated for the whole subsequent thirty days. This plan is manifestly liable to great abuses.

The evils of indiscriminate medical charity have recently been discussed in Philadelphia, and a committee has been appointed, representing the various city hospitals and dispensaries, to investigate the dispensary system, and secure greater care in the method of doing work.

Although the subject has been brought up and discussed in other cities, I am not aware that any positive action has been taken to secure reform.

From the trials thus far made, and from the opinions of those whose experience is widest in the matter, it seems necessary to conclude that the provident dispensary system is the one which goes farthest in affording a solution to the difficult question of the abuses of medical charity. There is a large number, though not a majority, of dispensary patients who cannot afford even to join such a dispensary. There is another large class who can afford to do so, but who will not. They are the improvident, who prefer to spend their extra quarter in rum, and then get treated gratuitously for the cirrhosis. There is a third class who cannot afford to pay a doctor's fee often, if at all, and yet who would be willing to pay something toward it. It is among those, the sober workmen and workwomen, the small tradesmen, perhaps clerks with small salaries and large families, shop-girls, and domestics, that provident dispensaries

* Vide op. cit.

would do a vast deal of good. Their example of providence might also influence their improvident neighbors. Eventually, if example failed, municipal and dispensary regulations might compel many of the second class to habits of providence. The co-operation of free dispensaries, as has been stated, is quite essential to a full and extensive introduction of the provident system.

And this suggests that there are many difficulties in the way of establishing these dispensaries. Money will be needed to set them going and help them until they are self-supporting. A large number will be required; for it is safe to assume that there are over 150,000 people in the city who could properly join them. Then there will be strong opposition, though it may be only indirect, from many of the established free dispensaries. This is especially the case with the dispensaries that furnish clinical material to the colleges. These always have been, and, it is to be feared, always will be the enemies of a provident system. Of the forty dispensaries in the city, however, less than half a dozen furnish clinical material to any large extent. In this respect we have an advantage over London.

There are also certain dangers to be remembered in recommending this dispensary system. Irresponsible parties will be sure to assume the name and the virtue, although they have neither. Every institution, therefore, should be started under public and responsible, not under private management. It might be well for county medical societies to keep a list of the legitimate institutions and issue certificates of regularity to them.

But, whatever the dangers, it must be remembered that the advantages of the system have already been observed. So-called provident dispensaries will soon spring up in any event. It will be better, therefore, for reputable men to take hold of the matter and preoccupy the field. We may sum up, then, the whole matter:

Most serious evils exist in the present mode of bestowing medical charities. It is probably a low estimate to say that $150,000 are expended yearly by the lower classes in alcohol and other things, not necessaries of life, which should go legitimately toward the payment of medical services.

The provident dispensary system is the most efficient one which reason and experience have yet suggested as a remedy.

Its benefits would be: to give better medical and sanitary care to the poorer classes; to teach them self-respect and habits of providence; to furnish a juster remuneration to physicians for their labor.

It has been shown that it is a practical system and can be made self-supporting.

Its difficulties in this city are not insurmountable, and its dangers will not be lessened by leaving the matter alone.

I have by no means exhausted the subject. I have, indeed, touched but briefly upon the details of its practical workings. These have been well matured and are embodied in a pamphlet, referred to already, and entitled "Model Rules for Provident Dispensaries," published by the London Society for Organizing Charitable Relief. I have simply tried to present the facts in the matter, in the hope that a knowledge of them may lead to a fuller discussion, and, if deemed advisable, to some definite action.

62 West Forty-sixth Street.

Gratuitous Medical Relief is to be given to about one-fourth of the sick in Chicago.

EFFECTS OF COLOR ON DISTANCE.

By C. A. BUCKLIN, M.D.,

new york.

That artists unconsciously avail themselves of a universal visual imperfection in producing distance on canvas, is a fact which in interest is only exceeded by the fact that all eyes have visual imperfections.

Let us compare, experimentally, the human eye with a simple optical instrument, and we will find that the eye has even more defects than the instrument.

I. If we allow a ray of sunlight to fall upon a prism of glass, after passing through it, the ray divides itself into various colors; they are all bent toward the base of the prism; the violet rays are bent the most, the red rays are bent the least.

This demonstrates that the red rays are more difficult to bend than the violet.

II. If the light from a candle, twenty feet distant, falls upon a common magnifying-glass (No. 2), the rays will be united in one point about two inches behind the lens. If we place a sheet of paper at this point we will see formed upon it a round point of light; if we carry the sheet of paper a few inches farther back, a distinct inverted image of the candle will be seen. If the candle is then brought a little nearer to the lens the image will vanish, and the former round light point will gradually take its place, which indicates that the rays are united farther behind the lens than they were. That is, by bringing the candle nearer we have made the rays more difficult to bend or unite.

Bringing the candle nearer make the rays diverge, and diverging rays of light, as well as diverging projectiles, are difficult to make converging.

We have seen that red rays were more difficult to bend than violet.

Now we have found that divergent, or rays from a near object, are difficult to converge.

This makes it evident that *color* and *distance*, independent of light and shade, are interchangeable. A lens should unite rays from violet objects and rays from red objects at the same point; but a simple lens does not.

The discussion between Newton and Euler as to whether this error existed in the human eye, is not without interest. Newton's belief that the eye was not achromatic, and also that it was impossible to produce achromatic refractive instruments, led to his inventing and constructing the reflecting telescope.

Euler's incorrect belief that the eye was achromatic, led to the construction of achromatic telescopes and microscopes.

We have but to compare the glass lens with the lens in the human eye (as was done by Maurolycus in the last half of the sixteenth century). The sheet of paper representing the retina, the candle the observed object, and the dark space intervening between lens and paper, the dark chamber of the eye. Thus we have compared the eye with a simple optical instrument. The chromatic aberration of the human eye is considerably less than that of a glass lens.

Without referring to the details of Fraunhofer's* experiments, by which he not only demonstrated the existence of this error in the human eye, but with which he measured it, I will give you his results. At the far point of distinct vision, with the eye at

* Mauthner: Optische Fehler des Auges, p. 35.

rest, a violet object must be twenty-six inches nearer in order to be seen with the same distinctness as the red object. Artists all agree that independent of light and shade, coloring parts of a painting violet retires them, while coloring them red advances the same. I consider that their success in producing this effect depends principally upon this universal visual imperfection in the human eye.

If I have succeeded in calling the attention of those who have but little time to study optics to the fact that all eyes suffer from chromatic aberration, and have given them a general idea of the nature of this visual imperfection, my aim has been reached.

ON THE TREATMENT OF TUBERCULAR CONSUMPTION.

By CARL BOTH, M.D.,

NEW YORK.

Some time ago I published an account of a treatment of tuberculous phthisis, which I had used with good success for twenty-two years. That treatment consisted in, *first:* The cleansing of the bronchi of mucus and pus, and afterward the normal expansion of the air-vesicles by means of actively exercising the respiratory muscles (See MEDICAL RECORD, of July 21, 1877, and May 18, 1878). *Second:* The careful study of the needs of the system for certain articles of food containing lime salts; and a proper appreciation of the necessity of getting rid of excrementitious substances as quickly as possible. *Third:* In a medication of certain minerals in organic form, such as lime and silica, for the purpose of aiding the calcification of tubercles; and in acids, such as citric, which contain an excess of oxygen, and which tend to help the oxidation of protein substances. *Fourth:* In bringing the patient in such condition of life that his nervous system is not unnecessarily overtaxed, at the same time it is so employed as to balance nervous force and stimulate his general nutrition as much as possible.

The whole object of this method, which I have called that of the "artificial calcification of tubercles," is to check the suppurative processes and arrest the softening of the indurated portions of lung. It is immaterial how this effect is reached, whether by calcification of tubercles, or fatty degeneration, or ossification, or cicatrization, or by solidification of fibrin, or any other pathological process, so long as we reach our desired object—namely, of drying up, so to speak, the softened or infiltrated portions of the lung-tissue.

I well know how settled the professional mind is on the incurability of phthisis, especially tubercular; and it is not without a feeling of misgiving that I venture to continue my assertions regarding the curability of phthisis. I am aware that such assertions will be charged to undue enthusiasm in a pet method, or to misguided judgment regarding the value of facts. Still I feel it my duty to say what I believe. It is not my purpose to theorize on the relation between the cause and the effect, although there must be room for all theories.

The profession, as a whole, accepts and rejects views as it sees fit. But facts are stubborn things, and are always acceptable to the profession, no matter what their particular interpretation may be. With this view a short description of some of the cases treated by my method is offered, in the hope that the profession may become convinced of its efficacy, and resort to it accordingly. I claim in no way perfection, or anything wonderful, but unless my judgment is utterly defective, these cases must convince the most conservative sceptic, that tubercle-cases of the lungs can be arrested to a degree hitherto considered absolutely impossible.

It may be well to state beforehand, that all the cases reported were more or less desperate ones; that to manage such patients is very difficult, sometimes impossible, and that even with the utmost caution these patients, especially the recovering ones, will commit follies almost incomprehensible, and utterly beyond the control of the medical adviser. But it will be seen that the effect of my treatment is uniform, regardless of the final result, the same in each case, and excluding any accidental improvements which are so common in these cases.

Mr. W. H——, merchant in New York; native of Yonkers; twenty-eight years of age; lost a brother and sister of consumption in 1876; had been sick for ten, and was compelled to give up business for two years. Had tried Colorado, Minnesota, and the South, outdoor tent-living, with injurious results; had been examined by Drs. C. P. Tucker, A. Clark, and A. Flint.

Examination denoted decided dulness at both summits; right side, comprising both upper lobes, with *bruit de pot fêle;* lower portion of right chest, absolute dulness to about the nipple. Auscultation on right side bronchial, with strong gurgling sound indicating a cavity of four by two inches; middle portion, broncho-vesicular; lower portion of chest, absence of sound; right upper lobe, subcrepitant râles with bronchial respiration. Pulse 124 and variable. Heart well. Digestion fair. The patient came under my treatment in October, 1876. In August, 1877, he went back to his business, four months sooner than I wished him to. His condition was then as follows: Dulness of percussion nearly the same, except the right lower portion, where it had entirely disappeared. Auscultation: The gurgling sounds of cavity had disappeared; cavernous respiration indicated the cavity smaller on summit, but had extended somewhat downward, caused by formation of a new cavity; respiration around it broncho-vesicular. In lower portions of right lung, normal vesicular respiration. Left upper portion respiration vesicular, with a very slight tubular timbre and prolonged expiration; lower portion normal. He was at that time re-examined by Dr. A. Clark.

The patient has remained steadily in business, working hard. I examined him again in January, 1879, when he had neglected himself somewhat. I then heard bronchial râles and moist crepitation on left side. It soon subsided, and he was hard at work when I last saw him in June, 1879. He is at present travelling in Europe. From August, 1877, to June, 1879, he had not missed a day in his business in the city, while he lived in Yonkers. Considering the large cavities, which of course cannot heal on account of the pyogenic membrane, and cause him to cough on exertion, he appears perfectly well from his looks and actions.

Mr. Herrm. B——, merchant, in 51 New Street, New York; native of Hamburg; twenty-two years old; had lost a brother from consumption in Madeira in 1871; was attacked several times by haemoptysis in 1875, for which he was treated by Dr. Pregitzer, of Staten Island. Not recovering, he consulted Dr. Schnetter, of New York, who sent him to Aiken, S. C., from where he returned much reduced. Dr. S.

then advised him to go at once to Pau in the winter, and to Davos, Switzerland, in summer. With the steamer ticket in his pocket, he came to me in October, 1876. His appearance was decidedly hectic; had night-sweats, and a pulse of 135 at rest. Percussion dull on both apices, much more on left than on right side, with cracked-metal resonance between third and fourth left ribs, and pains on percussion. Respiration bronchial, with subcrepitant râle, on both summits, on left side down to fifth rib, with cavernous whisper between third and fourth ribs, indicating a cavity of the size of a large walnut. He was not able to walk ten blocks, and could not retain his food. He was under my treatment from October, 1876, to June, 1877, when he sailed for Europe. Before he sailed Dr. Lellmann, physician to St. Francis' Hospital, New York, had the kindness to examine him, and although he was very much better than when I first saw him, Dr. Lellmann warned me not to be sanguine in my expectation of his recovery. The patient returned to New York in October, 1877, and re-entered business. He is a well-known member of the Produce Exchange. He finally became careless of himself, when an attack of hæmoptysis frightened him, and gave me a chance to perfect his cure. He has recovered so as to outwalk me at any time, dances all night, eats and drinks as he pleases; has been through serious business excitements, and broken his fibula, which confined him four weeks on his bed. He looks so well, and shows such vitality that he is laughed at by his friends when he says he is consumptive. The condition of his lungs is as follows: Percussion is moderately dull in both summits. Auscultation denotes a somewhat large vesicular respiration in the affected portions, with prolonged expiration. The signs of the cavity on left side have disappeared, so has his cough. His pulse is 60 to 70; he is very strong and has gained considerable flesh. His chest has become full and rounded, and he presents as perfect a recovery as can be realized only by the most sanguine expectation. Still, I am satisfied he would have died had not the hæmoptysis brought him back under my control in 1877; and I may mention that when I took him as a patient with the view of curing him, I was ridiculed by all his friends.

Frank W. T——, M.D., practising physician of New York, came to me in March, 1877. He had been examined by all the leading specialists of New York, and had been treated by Drs. Elsberg and Linoln for marked aphonia of two years' standing. He old me that these gentlemen found two tubercular ulcers upon the vocal ligaments. Examination of ung denoted marked dulness in both summits to bout fourth rib, and an exudation of two inches in ight pleura, over which auscultation denoted a soft repitation, indicating a not fully reabsorbed pneuonia. Respiration in both upper portions bronhial, with mucous and subcrepitant râles. Pulse 20, digestion entirely out of order, very weak, and hort of breath. Two weeks after I treated him his phonia left him, when he failed to appear. I found im in his office very sick. He had taken nitrous-xide gas and morphia. I managed to get him out gain, but he was a very irregular patient, and I lost ight of him until September, 1877, when he came ack much reduced and weaker. He then began reatment in earnest, and improved steadily, so that e could walk daily to my office during the whole inter, which he could not do previously. In June, 878, he went to spend the summer on a farm, with ie direction to return in September to complete his ecovery. That was the last I saw of him. I am fearful that he feels so well that he considers no further treatment necessary.

John M——, architect, a patient of Drs. John L. Campbell and James L. Little, presented a case of pleuritic exudation of about four inches in left pleura, dulness over whole left lung on right side to fourth rib. Auscultation showed the varieties from cavernous gurgling to dry, moist, mucous, and metallic râles. Both tympani were destroyed by tubercular ulceration, with ulcers on tongue and pharynx. He had also three fistulæ-in-ano, from which he suffered very much. I treated the case, by special request of Dr. Campbell, from September, 1877, to March, 1878. The patient made such favorable progress that Dr. Little sent me a note of congratulation. An abscess in the lungs broke on the 10th of December. This completely upset him; still he rallied again, walked over three miles per day, until February, when another abscess broke, and two weeks after that another, which completely exhausted him. He died very easy. Post-mortem was decidedly refused. This case was an utterly desperate one, with no chance at all, but it showed the effect of treatment, nevertheless, as the medical gentlemen mentioned above can testify.

Mr. C. A. M., merchant of New York, 22 years of age, had been treated some time by a French physician when he was examined by Dr. A. Clark, who pronounced his lungs affected, and recommended the South. He was also examined by Dr. Metcalf, who concurred in the same opinion. The patient, therefore, went to Asheville, N. C. This was 1877–78. He returned very much sicker. I saw him in May, 1878. Percussion was dull, more or less, over the whole of left lung front—moderately dull in right summit to about third rib—resonance on back about even on both under portions. Auscultation denoted ronchi of cavernous character front and back on left side—some portion almost entirely devoid of any respiratory murmur, while portions between them gave bronchial râles, and subcrepitant râles over the whole of left portion in front. There was some vesicular murmur audible on lower portion of back, but of a moist character. Left upper side subcrepitant râles on summit, lower portion normal; expiration a little sharper. Pulse 128 at rest; decidedly hectic; parents both healthy and living, but several brothers delicate. Patient could walk but very slow and with difficulty. As the case was decidedly a desperate one, and liable to die at any time, I took the precautionary measure to have him re-examined by one of the most distinguished physicians of New York, who gave his opinion that the patient was beyond the hope of any possible recovery. I then treated the case with the following result: for the first two months he made no perceptible progress, except that he obtained better sleep and became livelier. In September his pulse began to fall, and he improved visibly. In order to reach my office daily, he had to travel twenty-four miles by railroad and a mile to walk. He improved so that he walked three or four miles daily when at home, besides his thoracic exercises. His pulse began to fall from 76–78. In February it began to rise somewhat, and the patient complaining of soreness in his left thorax, made me suspect an abscess ready to open, and he removed temporarily to the Windsor Hotel. After a few days the abscess opened, and he discharged a large quantity of pus. To my surprise this did not affect him so seriously as it generally does, but he soon felt so much better that I permitted him to go home again. Pulse back again to 78. The large cavity left could easily be diag-

nessl, which, with the already existing smaller cavities, comprised an area from the clavicle down to the nipple. The tissues existing between these cavities I hoped to save for cicatrization. The patient meanwhile, remained about the same, not well enough to do business and too smart to do nothing, the right lung progressing well all the time. Spending the summer with me in Nantucket, Mass., he left a week in August for New York City to meet his father, who had just returned from Europe, and to have a good time generally. He returned to Nantucket somewhat used up, but still his physical signs were about the same; pulse 96. Thinking that I could make a change for the better I allowed him to travel over the White Mountains, regardless of weather, which he did in September, consuming about three weeks. He enjoyed his trip very much, but returned changed for the worse. His lips and nails, which were rosy and bright, looked bluish; his pulse 112, and very feeble. Examination showed that the cavities in the left lung had coalesced. Right lung in perfect order; respiration vesicular throughout and dry; only in upper portion respiration prolonged and audible. The patient travelled his twenty-four miles every day to reach my office; his pulse is 80 in bed; 104–112 in daytime; appetite and digestion perfect. The case is an extremely painful one, demonstrating the good effect of treatment in one lung and its utter helplessness in the other one. This patient finally succumbed to the disease.

Mr. Alex. W——, bookkeeper in Bank of Lansingburgh, 26 years old. I saw the patient while in Albany. He had been sick about two years, trying in vain different modes of treatment. Besides being lung-sick, he had chills and fever for two months, for which he had been in Brooklyn, but failed to get rid of them. I saw him in May, 1878. Examination showed the left upper lung very dull on percussion. Respiration bronchial, with mucous râles. Subcrepitant râles in lower left lung. Right lung less dull on percussion, with some mucous râles, but with subcrepitant râles in both upper lobes. Pulse 145; very weak. Epigastrium painful, abdomen hard and dull, digestion completely out of order, severe night-sweats; hectic, with bluish lips and nails. I ordered a dose of sulphate of soda, followed next day by a dose of the juice of twenty lemons, with hot-water sheets applied an hour previous to the chill. This arrested his fever and chills at once, and he came to New York. His pulse was 140, and he was so weak that he was unable to walk four blocks. His cough and looks alarmed the guests and landlord at the hotel in Nantucket, who thought he had been brought there to die. He soon picked up, however, and in February, 1879, he walked over 200 miles. Although not quite well he left me in June, with the understanding to spend the summer in Nova Scotia, at the seashore, instead of which he remained at home in Lansingburgh, doing business. The result was a return of the chills and fever, for which he was in New York a few days ago to consult me. I advised him to go home again to apply the hot water until the epigastric pain had gone. Of course, he does not look so well as he did in the spring, but, with some attention on his side, he will soon make up again. His pulse has been all along 58 to 60, when quiet; since the fever, it has, of course, been higher, varying from 80 to 96.

Mr. Geo. W. Sh——, from Albany, came to me, through Drs. Bailey and Curtis, in June, 1878. Examination showed a moderate dulness of both summits to third rib on right and fourth rib on left side, with subcrepitant râles. Pulse 80, no complications. This case made very rapid progress, gaining six pounds in weight, under somewhat severe exercise, in two months. Instead of remaining with me until Christmas, when I promised to dismiss him as cured, he felt well enough to discharge himself.

Mr. J. Watson A——, 30 years of age, from Fishkill, N. Y., a merchant, came under my treatment in August, 1878. He had a very moderate dulness over both upper lungs, with bronchial mucous râles and moist crepitation. Pulse 76. This, I considered, was quite a curable case. He left me suddenly after two months, just when the case worked to my full satisfaction. I did not see him again until this last summer, when he had apparently failed very much. Since October 1st he has been my patient again. The dulness now is quite perceptible, his pulse 101 to 112, and I am apprehensive of the formation of an abscess. Auscultation denotes subcrepitant râles over both upper portions. Respiration decidedly bronchial, with occasional mucous râles. I shall report the result of my treatment hereafter.

Miss H——, from Brockport, N. Y., aged 20, was sent to me by Dr. Braman, in August, 1878; marked dulness in both apices as low as fourth ribs, with bronchial respiration and subcrepitant râles. Not able to retain any food; very feeble and nervous; pulse over 100. She recovered so quickly that she could walk two miles without difficulty. After six weeks I ordered her to exercise her respiratory muscles more actively, which resulted in serious pains in back and abdomen. I then discovered that she was suffering from prolapsus uteri with antroversion, and which she had hidden from me for unknown reasons. As this arrested my treatment, and she preferred her brother-in-law to the specialists recommended by me, she left for home. I have heard that she died a few months since.

Mr. A. R. McM——, merchant and banker, from Toronto, came to me in August, 1878, through Dr. Walsh, of Michigan. Had been a consumptive in valid for ten years, under treatment of Dr. Phillipps, of London, Eng. Had been in Egypt, Madeira, Mentone, and Western America, with temporary benefit, but had failed rapidly for the last two years. fifty-two years of age; presented a strongly marked hectic habitus. Examination, left side, denoted decided dulness to fourth rib, with bronchial and irregular respiration and subcrepitant râles; right side, marked dulness to fifth rib, with *bruit de pot fêlé* under clavicles, which stood out higher than an inch. Auscultation gave strongly-marked cavernous respiration under clavicle, surrounded by bronchial and irregular respiration, with wheezing noises; occasional mucous râles; amphoric voice; pulse intermittent every fifth or seventh beat—irregular, but not higher than 72 to 76; heart appeared normal. Patient was very weak; chest sunk and flat. After three months his pulse became perfectly regular. He left me in May to spend the summer at Rye Beach. He intended to return to business this fall but by my advice and that of his friends, will spend this winter still under my observation. His condition is now: Chest full and developed; walks ten miles up and down hill as straight as an arrow, without unusual fatigue; pulse 60 to 64. Examination of chest denotes moderate dulness on both summits. No marked signs of the cavity left. Respiration established evenly in both points, with a broncho vesicular character and prolongated expiration. No râles. Since August he has occasional spasms of cough seemingly caused by irritation of throat, but may be

due to reflex irritation also. He managed to get his digestion out of order at Rye Beach, without apparent injury to his system. I expect to dismiss him in the spring a fully recovered case—which he is nearly now.

This necessarily short report of these few cases may suffice to illustrate the nature of the affections in question. It will be seen that most of them have been examined and treated by the most accredited specialists in the country, and there can be hardly any doubt as to the seriousness of the cases, none of which had any chances left by the usual routine treatment. Even if I had lost all these cases, which fortunately I have not, a uniform effect of my treatment is apparent in any of them, as I take patients as they come, and I have to bear up against the fact that the quick recovering ones leave me before I get a chance to finish them, while the failing ones invariably remain with me until death. This fact makes my full recoveries less than they would be otherwise.

As already stated, the treatment cannot be expected to accomplish miracles, but it is offered as one which brings about gratifying results. The expansion of the lungs by the active and varied exercise of the respiratory muscles, is comparatively simple. The difficulty is in keeping it up in a systematic and methodical way, with a determination to accomplish the ultimate result. It requires the utmost patience and perseverance on the part of the patient, and the physician should have him under complete control. The same may be said regarding diet, but in a much greater degree. The patient's diet must be studied day by day; he must keep a diary of his meals, and give a daily account from his written record of the time of eating, the amount and variety eaten, and of any unusual symptoms which may be referred to imperfect indigestion. Under such training, the system soon makes known its wants, and the discriminating physician acts accordingly. But this, of course, cannot be learned except by a study of individual cases and by the use of that common sense which comes of extended experience and careful observation.

13 East Thirtieth Street.

Progress of Medical Science.

Nerves in the Marrow of Bones.—M. Rémy has examined microscopically the marrow of amputated bones, by means of chloride of gold, and claims to have discovered nerves. Some of them contain myeline, and are of small size; others are fibres of Remak. They are very numerous, follow the course of the vessels, and are, in all probability, vaso-motor.—*La Tribune Médicale*, January 1, 1880.

Inflammation of the Internal Coat of the Vessels in Tubercular Meningitis.—In 1867 M. Cornil demonstrated the blocking, with fibrin and white blood-globules, of the vessels of the pia mater running through tubercles. Further observation has convinced him that the lesions of the vessels in tuberculosis do not consist entirely of inflammation of their sheaths and external coats, but that there is also a special inflammation of the tunica interna, and to this tubercular endarteritis and endophlebitis he has called the attention of the *Académie des Sciences*. This more or less thickened membrane, situated in the middle of the tubercle, is formed of round, elongated, or angular cells, all provided with small rounded nuclei. Approaching the lumen of the vessel, some very large cells are found, giant-cells in fact, which in this disease are only found in the internal vascular coat. As a practical conclusion, M. Cornil advances the opinion that these alterations tend to prove the infectious nature of tuberculosis, the contagion being evidently carried to the tunica interna by the poisoned blood.—*Le Courrier Médical*, January 3, 1880.

Changes in the Cutaneous Nerves in a Case of Vitiligo.—The pathological anatomy of vitiligo, especially the changes occurring in the cutaneous nerves, has hitherto received but little attention; a fact which will increase the interest in the following observation reported by MM. Leloir and Charrier. The patient was a man, twenty-three years of age, who had been attacked three years before with vitiligo, and who, during infancy, had suffered from various skin affections, such as impetigo, pemphigus, psoriasis, etc. Eight years previously he had contracted syphilis; five years afterward ulcerations appeared on the penis, and their vicinity was shortly marked by large characteristic spots of vitiligo. These spots, surrounded by deeply pigmented circles, increased in size, and new ones appeared in consequence of the irritation of the skin by the application of medicinal substances. This led M. Fournier to believe that the affection was of nervous origin. A small piece of skin was removed from a three year old patch, situated on the lower portion of the abdomen, and submitted to MM. Leloir and Charrier for examination. They found that a large number of the nerve-fibres were greatly changed, presentiug distinctly the lesions of nervous atrophy. These changes pointed to the fact that there had been a slow degenerative process. Besides the nervous lesions, it was also shown that the epidermis was greatly thinned; the papillæ had entirely disappeared, and the corneous layer alone remained. Is this an exceptional case, or are these lesions always present in vitiligo? If they are present in all cases, this disease resembles other trophic troubles of the skin—for example, anæsthetic leprosy and certain forms of pemphigus.—*Le Courrier Médical*, December 27, 1879.

Arthropathy of Locomotor Ataxia.—Some years ago M. Charcot described a peculiar lesion occurring spontaneously in the course of locomotor ataxia, frequently at the very beginning of the disease, to which he gave the name of "arthropathy of ataxia." These lesions, accurately observed by him at *La Salpêtrière*, were afterwards recognized by Westphal in Berlin, Mitchell in America, and Rosenthal in Vienna. These observers differed only in their interpretation of the nature of the affection, M. Charcot believing it to be a clinically distinct affection, while the others considered it only a form of dry arthritis. M. Charcot has given the clinical and pathogenic reasons which induced him to think this affection a direct result of the changes in the spinal cord, and not an accidental and concomitant lesion. An analysis of the bones of an ataxic subject suffering from arthropathy, made by M. Regnard, and reported to the Academy of Sciences, would seem to support the positiou taken by M. Charcot. It shows that the bones, in this disease, undergo great changes in their composition, similar to those observed in subjects of osteomalacia. These changes are not confined to the extremities of the bones as in dry arthritis; the bone becomes fatty through its entire length, the earthy salts disappear, become very brittle and break with the least exertion, giving rise to the spontaneous fractures of ataxia. The arthropathy of ataxia, then, according to M. Regnard, is very similar to osteomalacia, or to

the c[illegible]s steatosis of Jones, diseases in which we sometimes meet with as much as twenty-nine per centum of fat, the phosphates being reduced to twelve or even to seven per centum.—*Le Courrier Médical*, December 27, 1879.

Repair of the Blood after Acute Diseases.—The following is a short résumé of a lecture on this subject given by M. Hayem.

The evolution of the blood, arrested during the course of acute diseases, recommences from the moment of defervescence. The manufacture of red blood-globules is accomplished by means of a new production of hematoblasts, viz., minute red blood-corpuscles. In observing this phenomenon, it is necessary to distinguish acute diseases of short duration and rapid recovery from those of slow course and protracted convalescence. In the former class, the production of hematoblasts accompany, or closely follow convalescence, and a large number of these elements suddenly appear in the blood; but, as they are rapidly transformed into red globules, their accumulation in the blood, after having once attained the maximum number, is relatively short. In cases of the second class, the production of hematoblasts is more tardy, following one or more days after convalescence; then the number of the new elements, their formation not ceasing, is, for a long time, greater than that of the transformed globules. Their accumulation seems to be accomplished by successive "*bonds*," and the maximum number is not reached for one to three weeks. This repair of the blood is analogous to that taking place after hemorrhages, especially after long-continued bleeding. In consequence of this production of new elements, under the form of hematoblasts, and afterward of blood-corpuscles, the blood of convalescents contains, for a variable period, incompletely developed red globules, which reduce below normal the average amount of coloring matter contained in the red corpuscles. *Le Progrès Médical*, December 6, 1879.

Inhalations of Bromide of Potassium in Pertussis.—Dr. Körner, of Trebnitz, has for some time treated all his cases of whooping-cough with inhalations of bromide of potassium, and states that they all recovered completely in a relatively short space of time. He uses generally a four or five per cent. solution, and makes the patient inhale about twenty grammes (ʒv.) three times a day. He says: "After the first few inhalations a very decided improvement was noticeable, and in from three to five days the alarming suffocative attacks ceased, and the children expectorated easily. After a few days more, the whooping-cough, had as a rule, disappeared. The children took the inhalations readily, much more so than they did medicine." Dr. Körner insists on the importance of administering the inhalations properly, and on the necessity of the physician supervising them himself, at least in the beginning.—*Allg. med. Cent. Zeit.*, Nov. 19, 1879.

On the Action of Pyrogallic Acid.—Pyrogallic acid, which has latterly been recommended as a substitute for chrysophanic acid or chrysarobin, is, according to Dr. Neisser, even when employed externally, one of the most powerful poisons. He was led to investigate the action of the drug by the death of a robust man, who was under treatment for psoriasis universalis in the dermatological clinic in Breslau. After some preparatory treatment, chrysarobin in the form of a twenty per cent. salve of the ext. rhei spirituosum had been applied, in the usual way, to one half of the patient's body, and a ten per cent salve of pyrogallic acid to the other half. Six hours afterward the patient had a violent chill with nausea, vomiting and marked collapse. He rallied from this attack, but had a second one forty hours later, which terminated in coma, with great lowering of the bodily temperature. Death took place on the fourth day after the application of the salve. The urine passed during this entire period amounted to only 1,600 cctm., and the last passed presented the highest degree of hæmoglobinuria. At the autopsy the blood was found to be of a dirty, brownish-red color; microscopically, it presented a large number of perfectly colorless stromata and many fragments of corpuscles. The kidneys were bluish-black in color, and the tubules were filled with a substance similar to that found in the urinary sediment.

Neisser first demonstrated the innocuousness of chrysarobin by injecting very large doses of different preparations of rhubarb under the skin of rabbits, and then showed, by analogous experiments, that pyrogallic acid, so used, is poisonous. When a moderate dose was injected, it caused a chill, dyspnœa, tremor of the extremities and lassitude, and the animal either died in the first or second attack, or recovered after experiencing several slighter paroxysms. The urine passed during the first paroxysm presented distinctly the characters of hæmoglobinuria; the blood presented the above characters, and the renal tubules contained numerous hæmoglobine casts. When larger doses were administered the animals died in the first paroxysm, and the blood presented the same characters—viz., discoloration and destruction of the blood-corpuscles, but hæmoglobinuria was not developed. When still larger doses were used (two grammes for one kilo. of weight), death usually took place within two hours. In these cases also hæmoglobinuria was wanting; and the blood was of a black color, and sometimes of a chocolate or jelly-like consistency, but it did not present the remains of destroyed corpuscles. These effects of pyrogallic acid, on men and animals, are ascribed by Neisser, first to the affinity of the acid for oxygen in the presence of alkalies, and second to its consequent decomposition; these reactions can be produced and studied as well outside of the body. The acid, when taken into the blood, destroys more or less of the red corpuscles; the hæmoglobine is dissolved in the plasma of the blood, and the remains of the corpuscles are suspended in it and reduced to fragments. The hæmoglobinuria resulting from this destruction, cannot, according to the experimenter, prove fatal through the anuria consequent upon the obstruction of the renal tubules, because this anuria is too brief to permit of a fatal accumulation of the constituents of the urine in the blood, but it can by the retention in consequence of this obstruction, of the pyrogallic acid in the body, and the prolonged exposure of the blood to its destructive action. He does not attempt to account for the development of the obstructing pigment-casts in the renal tubules. Transfusion with simultaneous venesection would be the rational method of treating poisoning by pyrogallic acid. In the earliest stages the induction of active diuresis to keep the urinary canals open would also be indicated. Dr. Neisser suggests that his experiments prove that pyrogallic acid should not be applied to a large portion of the body at once. He thinks that its use should be confined to the head and face, and that the innocuous chrysarobin should be preferred for the trunk.—*Berliner klin. Wochen.*, Nov. 24, 1879.

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THE ABUSES OF MEDICAL CHARITY.

It is hardly necessary to excuse the interest which is now being taken in the question of the abuse of medical charity. In fact, in view of the enormity of the evil, and of its widespread character, it is a wonder that it claims such a comparatively small amount of the time and attention of medical men.

Possible reasons for this are, that the older men in the profession are, pecuniarily speaking, beyond the reach of the bad influences of the system, and the younger men are apt to look upon the present condition of things as inevitable, and past remedy. As a marked evidence for reform, however, it is gratifying to notice that the sentiment of the younger men is beginning to change, and in various sections of the country the abuse of medical charity is being discussed in a way that promises some practical result. The matter of making a living by his profession appeals to him with terrible earnestness. Year by year, with the increased competition going on around him, he finds that his chance for success is becoming less and less. He cannot prevent the new men from dividing up his living, and he is consequently compelled to enlarge the field of his struggle, and to look after what was heretofore considered the waste places. The idea of throwing away services for the sake of being called charitable, of struggling the best years of one's life for a bare subsistence, and, in the end, leaving a family dependent upon some widow and orphan society, is beginning to lose its romance. The necessities of the hour look beyond this. There is nothing that gives a man a better chance in a race for bread than to know that his breathing is not impeded by a full stomach. It is hardly complimentary to the younger practitioner to liken him to such a bread-winner, but it is necessary to do so in the cause of truth. Hence, we can appreciate the earnestness of his efforts for reform.

We agree with him, and with all others who have given attention to the subject, in saying that the abuse of medical charity is beyond all reason, and that the most radical measures are called for. The evil, far from abating, is on the increase. Dr. Dana, in a very suggestive and instructive paper on this subject in the present issue, gives some interesting statistics concerning this point. The ratio of increase of medical paupers in Birmingham, compared with the general increase of population of that city, is a striking fact, and will doubtless find its parallel in large cities in this country. In this city there is such a premium on medical pauperism, that the latter is becoming respectable. It is considered a smart thing to dodge into the college clinic, into the dispensary, or out-patient department of a hospital, and get the opinion of "a head doctor" for nothing, and this from people who can afford to pay. The story of the dispensary patient who complained that she was kept waiting while she was paying a dollar an hour for her carriage at the door, has its counterpart in the experience of every dispensary physician and clinical attendant. We have in mind the landlord of a doctor who called upon the latter for advice at a dispensary, and when the service was refused, said that he never paid for what he could get for nothing. But it is useless to multiply examples, or to prove a point already well established. The time has evidently come for the profession to do something to protect itself, and we are pleased to learn that the task is being undertaken with a freshened vigor, which promises tangible results. In Chicago and in Philadelphia large and earnest meetings of medical men discussed the subject in all its varied phases, and committees have been appointed to draw up a plan of action which shall tend to reconcile the conflicting interests of the colleges which must have clinical material, and the struggling medical men who must have practice. As in other cities, Chicago and Philadelphia are overrun with medical charities. In this city particularly, if the facilities for dispensary treatment, for hospital accommodation, and for clinical demonstration, are not curtailed, the practitioners who attend the middle and lower classes, and who are content with ordinary fees, will be left entirely out of the race.

Various plans have been suggested to remedy the evils. The payment of small fees has been tried with some benefit, but this is open to the objection that the people will get into the habit of supposing that the services are worth no more than the normal charges made. The provident plan has been discussed with much earnestness by the medical profession in Great Britain, but the practical results thus far have not been as satisfactory as was anticipated. In this country the idea of the establishment of similar institutions is beginning to assume a tangible form, and will doubtless ere long be an accomplished fact. But

before the latter can be realized, much has to be done in reforming the present free dispensary system and in correcting the abuses of the college clinic. How this may be accomplished will be the subject of future discussion in these columns.

A FOREIGN STIMULANT.

A new edition has recently been issued of Johnston's "Chemistry of Common Life." It is edited by Mr. A. H. Church, who has made additions that will bring what used to be a standard work into favor again. Aside from its general merits, there is no book which brings together the facts in regard to the narcotics and stimulants used by the human race, in a more thorough and pleasing manner. Its republication has attracted attention to some of the statements therein made concerning the use and properties of these drugs.

There is no one of them which is so likely to strike the attention, on account of its reputed virtues, as the Peruvian coca. This coca consists of the sun dried leaves of the *erythroxylon coca*, a shrub growing wild upon the Andes, as well as extensively cultivated by the natives. It bears some resemblance to the tea-plant in appearance, odor, and effects. It has been used from time immemorial by the South American Indians, who are passionately fond of chewing its leaves. These they carry in a pouch at their side, along with a bag of pulverized quicklime, or ashes, with which they sprinkle the leaves, in order to bring out their full flavor and strength. The leaves are chewed until the juice is extracted, when the quid is spit out. Part of the juice is swallowed.

The most extraordinary accounts have been given by travellers of the virtues of this herb. It is said to take away the sense of hunger, and greatly to diminish the necessity of food; it relieves the muscular fatigue that comes of hard work or severe exercise, and enables persons to prolong this to a great extent. When taken in large quantities, it increases the activity of the mind, and produces a general exhilaration amounting sometimes to mild delirium. It has an extraordinary property of preventing the dyspnœa usually felt when climbing too high altitudes. Two hundred years ago the poet, Cowley (who was also a physician and botanist), in a poem on plants, wrote of this particular virtue:

> "Three leaves supply for six days' march afford;
> The Quitolta, with this provision stored,
> Can pass the vast and cloudy Andes o'er."

The Indian runners travel forty miles a day, eating only a little roasted maize, but chewing frequently the leaves of the coca. So valuable and remarkable a property does the plant have, that its introduction into Europe has been strongly recommended as a help to the overworked and underfed working-classes.

Some of the above statements have been made by physicians and reputable men; they are, at all events, endorsed by the editor of the recent edition of the "Chemistry of Common Life." If the drug has in fact any such properties as are described, it deserves more attention than has been given it. For, in these days of pedestrianism, bicycles, and athletic tournaments, something that will prevent tissue waste and muscular exhaustion would be extremely popular.

We have failed to find any very satisfactory experiments in confirmation, or otherwise, of the alleged properties of the drug. In 1876, Sir Robert Christison procured some of the leaves and tried them upon himself and fifteen of his friends. His plan was to walk until nearly exhausted by fatigue and hunger. He would then take from one to two drachms of the leaves. He found in each case that his fatigue was removed, the sense of hunger gone, and he was able to continue his journey with an elasticity and ease that surprised him. The leaves used by most of his pupils were weak and of poor quality. Among those who used only good specimens, the results agreed with those of Sir Robert's. He found that the pulse was not increased so much as when exercising without the drug, the perspiration was not affected, and the solids of the urine were lessened. The mind was not affected at all, nor was the appetite or digestion impaired. In the same year, however, Mr. G. F. Dowdeswell made a number of experiments upon hospital patients, and with entirely negative results. He gave his cases coca in large quantities, at all hours, without producing any sensible effects. Earlier experiments are equally conflicting and unsatisfactory. There are none recorded, however, in which similar trials to those of Christison's were made, and the difficulty of obtaining pure samples of coca make many of those tests with negative results unreliable.

One of the active principles has been isolated, and is found to resemble theine in chemical composition. This, with other facts, makes it probable that the plant's real properties do not differ greatly from those of tea. Thus, even its power to relieve the dyspnœa of high altitudes belongs somewhat to tea; Alpine travellers find that there is nothing so helpful or refreshing.

Nevertheless, so much stronger properties have, for a long time, been ascribed to coca, that we cannot consider the matter at all settled, and we must wait for further experiments.

EAR-COUGH.

Several cases, recently reported, of ear-cough, ear-sneezing, vomiting, and hiccough, call attention to a peculiar reflex disturbance that a few years ago excited much discussion. One of these cases was that of a woman who for years had been treated for chronic bronchitis. An increasing deafness finally drew attention to her ears. These were found to

contain large accumulations of inspissated cerumen, upon the removal of which the cough disappeared. In another case, a man was suddenly attacked with violent and incessant sneezing, which nothing could stop. It continued for two days until the man finally fell down exhausted and unconscious. When revived he complained of loud noises and great pain in both ears. They were found to be full of cerumen, with the tympana acutely inflamed; treatment directed to the ears cured the sneezing.

Some of the phenomena of ear-cough were described more than a hundred years ago. Any thorough attempt to explain the physiology of the matter, however, was not undertaken until about the year 1870, when quite a controversy took place in the English journals. Ear-cough was then asserted by some to be due to an irritation of the auricular branch of the pneumogastric, or Arnold's nerve, which induced a reflex irritation in the fibres of the pneumogastric, or more especially, perhaps, in the superior laryngeal, the nerve furnishing sensation to the larynx. Arnold's nerve is generally described as supplying the integument at the back part of the pinna, the auditory meatus being supplied by filaments from the temporo-auricular branch of the fifth. It was thought, however, that occasionally the auricular nerve sent branches into the meatus and, in such case, an irritation of it caused the reflex symptoms. Mr. John Wood asserts that he has occasionally seen this nerve perforate the auricular cartilage, and has traced it into the meatus. Although this may still furnish the best explanation of the symptoms, it is not a perfectly satisfactory one. It does explain why the cough does not occur when the nerve is irritated in other parts of its distribution, nor does it explain the reflex phenomena of sneezing in which we may suppose that the fifth ought to be involved. It involves also the hypothesis that the auricular nerve always has the particular distribution indicated when the symptoms occur.

It has been asserted, therefore, that all these symptoms are due to an irritation of the branches of the auriculo-temporal, the nerve which always supplies the meatus. Lockhart Clarke has shown that the nucleus of the pneumogastric is intimately connected with the base of the gray tubercle of Rolando, from which the sensitive root of the fifth arises. He has suggested that the irritation of the fifth might be transmitted to the vagus through this connection. However that may be, it is easier to suppose that the ear-sneezing is due to a primary irritation of the fifth in some way, as we know that to be the usual mode of producing the phenomenon. Irritation of stray filaments of this nerve are thought to cause sneezing in other cases. Thus, a sudden exposure of the eye to a bright light will sometimes bring on an attack of sneezing; and it is known that the nasal nerve occasionally sends filaments to the ocular conjunctiva. It is suggested that nerves are more irritable when thus distributed abnormally.

The question is by no means definitely settled, and it might be worth while for physiologists to make it the subject of further study.

TAXING DOCTORS FOR A LICENSE TO PRACTISE.

Some persons are making a strong effort in Washington to pass a bill compelling doctors to pay $50 per year for the privilege of practising medicine. This seems very much like putting on the last straw. The doctor now attends to all the city poor gratuitously, furnishing his services at the hospitals and dispensaries. This would cost the city thousands of dollars, if properly paid for, as is every other thing furnished to paupers, from butchers' meat to religious consolation. He is obliged to fill out, gratuitously, birth-certificates and death-certificates, both of which imply extra labor and special knowledge. He is expected to serve, without pay, on all kinds of medical boards, health boards, and charitable boards. Indeed, his advice and help are wrested from him, with no return, on every occasion possible. The fact that all these services are contributed willingly, does not destroy the obligations they confer, nor justify governmental authority in putting a heavy annual tax on him for his labors.

EXAMINATIONS FOR COLOR-BLINDNESS.

The examination of employees on railroads and vessels for color-blindness is becoming more extensively adopted as its importance becomes better known. The Boston and Hingham Steamboat Company, and the Boston and Lowell Railroad Company, now require all their employees to be examined for color-blindness by an expert.

In this city, all the employees, numbering over seventy, on the ferryboats of the Pennsylvania Railroad Company, have recently been examined by Dr. White, one of the Marine Hospital surgeons at this port. Among these latter one man was discovered to be almost a typical case of color-blindness, being unable to match the worsteds at all. The Pennsylvania Railroad Company intend to have all their railroad employees, who occupy positions requiring a knowledge of signals, to be examined.

It is to be regretted that there is a tendency in some quarters to have these examinations made by laymen, either in order to save expense, or out of an ignorance of the necessity of special knowledge on the part of the examiner. Thus, it has recently been resolved by the local steamboat inspectors that they will test the pilots for color-blindness. This is, perhaps, well meant, but it is an unwise thing to entrust the matter to persons not trained in physical examination nor accustomed to weigh clinical evidence. There are about ten thousand pilots altogether in

this country. At a moderate estimate, two per cent. of these are color-blind. The importance of having this large proportion carefully eliminated can be readily understood.

Reviews and Notices of Books.

TRANSACTIONS OF THE TENTH ANNUAL SESSION OF THE MEDICAL SOCIETY OF VIRGINIA.

These Transactions are published in the January number of the *Virginia Medical Monthly*. An advantage gained thereby is, that they are out much earlier than is usual for such publications. There are a number of excellent papers in the present volume. The annual address by the president, Dr. L. S. Joynes, urges the value to the profession of medical societies, and the importance to the public of a State board of health. A very useful paper by Dr. E. T. Robinson is on the subject of the Recent Advances in Chemistry, Pharmacy, Materia Medica, and Therapeutics; Dr. Geo. B. Jennings reports Advances in Obstetrics and Diseases of Women and Children; Dr. Wm. H. Bramblett, Advances in Practice of Medicine; and Dr. Samuel K. Jackson, Advances in Hygiene and Public Health. Dr. H. P. C. Wilson describes an antithermic shield, which he finds useful in connection with Paquelin's thermo-cautery. Dr. J. Marion Sims, by invitation, contributed a paper on Abscess of the Liver, in which he described the case of Dr. E. S. Gaillard. A paper on Diphtheria, by Dr. A. M. Fauntleroy, gives some practical clinical reflections on that disease. Several other papers of less practical interest complete the volume.

DICTIONARY OF THE GERMAN TERMS USED IN MEDICINE. By GEORGE R. CUTTER, M.D. New York: G. P. Putnam's Sons.

A GERMAN-ENGLISH medical dictionary has long been a desideratum with physicians interested in German medical literature, and by such this little work of Dr. Cutter will be warmly welcomed. It is more than probable, however, that this feeling of satisfaction will, after a short use of the book, be slightly tinged with one of disappointment. A dictionary, to be of much use, must be full and exhaustive, and it cannot be claimed for this one that it more than approaches exhaustiveness, although it contains in the neighborhood of fifteen thousand words, which at first sight seems a large showing. While we must admit that we have been, to a certain extent, disappointed with Dr. Cutter's book, we do not, however, wish to be understood as condemning it. As far as it goes, it is really excellent. The number of words given is large, the definitions are clear, concise, and as far as we have seen, correct, and the general form of the book, as regards size, type, and paper, is very good. The student of German will find it a most convenient addition to the appurtenances of his writing-table. He will, at all events, find it to contain the great majority of the words he will have occasion to look for, and though some will be wanting, he will be much better off than when he had only the ordinary lexicons to consult. He will then undoubtedly join with us in regretting that the author, whose ability is too well known to require any testimony from us, did not aim to make his book as thorough as the present state of medical knowledge would permit.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF THE STATE OF MISSOURI, at its Twenty-second Annual Session held in Columbia, Mo., May 20 and 21, 1879. St. Louis: Mc Cormick Nixon & Co. 1879. 8vo. 144 pp.

Dr. L. W. SCHAEFFER'S address, as President of the Association, discusses the two following questions in an able and masterly way. "1st. What is the value and what are the dangers of popular scientific education? 2d. What can each one of us do at home for the benefit of the medical profession at large, and how can we cause the people to respect the regular profession and scientific medicine even more highly than they do now?" Dr. E. Borck follows with a "Report on the Progress of Surgery." The article on "Growths in the Larynx, the Importance of their Early Recognition," by Dr. C. A. Todd, shows the necessity of an early diagnosis, to the end that treatment may be commenced before it is too late to effect a cure. The much discussed question of the value of an "Absent Patellar Tendon-Reflex" is taken up and discussed by Dr. C. H. Hughes, who also describes an "Improved Æsthesiometer." Dr. Lutz's paper on "Epithelial Cancer" contains many good woodcuts of the disease. Dr. Michel has a very long and interesting paper on "Purulent Ophthalmias and their Treatment," in which he enters into the pathology, causes, and treatment of the various forms of the disease. The articles by Drs. Steele, Dickinson, and Engelmann are of interest. A list of officers and members, with the constitution and by-laws, complete a very readable and excellent volume of "Transactions."

TRANSACTIONS OF THE INDIANA STATE MEDICAL SOCIETY, 1879. Twenty-ninth Annual Session. Indianapolis: Baker & Randolph. 1879. 8vo. 225 pp.

This little volume contains many articles of interest to the medical profession. The President's address, by Dr. B. Newland, on "The Relations of Legislation to Sanitary Protection," is well written and strongly advocates the formation of a State board of health. Dr. G. L. Andrew, in an article on the "Rational Treatment of Dysentery," speaks in favor of the use of ergot, and says that he has used it with a great degree of success. He also gives a brief résumé of the various methods of treatment of the disease, and enters into a discussion of its origin. Dr. E. W. King has collected the "Statistics of Placenta Prævia" from the practice of physicians in the State. One hundred and twelve cases are given and analyzed. On the subject of "Immediate Placental Delivery in Natural Labor" Dr. E. S. Elder says that we should endeavor to have the placenta delivered as soon as possible after the birth of the child, as it lessens the chances of hemorrhage, hour-glass contraction, uterine inertia, adherent and retained placenta, etc. Dr. R. E. Houghton narrates "A Case of Fracture of the Cervical Spine," and advocates an operation to remove pressure on the spinal cord and hasten recovery. Several other papers on various subjects are included in the "Transactions," but want of space will not permit us to enter more fully into detail. The book is gotten up in a handsome manner and reflects credit on the Society.

FIRST LINES OF THERAPEUTICS, as Based on the Modes and Processes of Healing, as occurring Spontaneously in Disease, and on the Modes and the Processes of Dying, as resulting naturally from Disease. By ALEXANDER HARVEY, M.A., M.D. Edin.), Emeritus Prof., etc., etc. New York: D. Appleton & Co. 1879.

To summarize the author's views, his aim is not to glorify art—this very decidedly—but to yield to na-

ture her meed of credit in the cure of disease. He therefore, in his scepticism of the direct agency of art, speaks of *recoveries* rather than *cures*, and demonstrates, with a rare incisiveness of logic, that, although art, to use the memorable phrase of Cullen, "may obviate the tendency to death," nature alone is the restorer. It is more especially the bias of the uninformed and the credulous to overestimate art, regarding disease as an entity instead of a condition of the living organism. Physiology, the natural history of disease, and morbid anatomy have done much toward the revolution in medical opinion regarding the fanciful properties of many articles of the materia medica; so that now but few have really unchallenged merits. Because of the constant association with art of the *vis medicatrix*, it is really difficult to run the line with precision; but there can be no doubt that to the latter belongs the larger territory, and indeed the right of eminent domain.

In the lectures on the modes and processes of dying, there is more illustration than novelty, yet the omission of these topics would seriously detract from the value of the work. We may say that, as a contribution to the philosophy of medicine, this treatise, which may be profitably read during odd moments of leisure, has a happy method of statement and a refreshing freedom from dogmatism.

PHARMACOGRAPHIA: a History of the Principal Drugs of Vegetable Origin met with in Great Britain and British India. By FRIEDRICH A. FLÜCKIGER and DANIEL HANBURY. Second edition. London: Macmillan & Co. 1879.

THE remarkable sale enjoyed by the first edition of this work in Europe permitted but a limited number of copies to reach this country, and these, it will be remembered, were held at a premium above the original published price, and when the last copy was disposed of, the event was deemed of sufficient importance to merit a special mention in one of the English journals. The work has also appeared in other languages. This second edition, therefore, comes with an acquired prestige that will go far to make it a work that every physician will desire to add to his library.

The authors treat the various subjects in full detail, each being considered with respect to botanical origin, history, description, microscopic structure, chemical composition, uses, substitutes and adulteration—the information furnished being fuller than that contained in either of the dispensatories. The revision of the work has fallen to the lot of Dr. Flückiger (Mr. Hanbury being dead), and in it he has received the assistance of Dr. Charles Rice, of this city, whose pharmaceutical knowledge and philological acquirements have added much to the value and usefulness of the volume. This second edition, though containing increased matter, is offered at a lower price than was originally asked for the first.

A MANUAL OF THE PRACTICE OF SURGERY. By W. FAIRLIE CLARKE, M.A., M.B. (OXON.), and F.R.C.S., Assistant Surgeon to Charing Cross Hospital. From the last London Edition. Revised and Edited, with Additions, by an American Surgeon. New York: William Wood & Co., 27 Great Jones Street. 1879.

No one of these handy books is more opportune than the Practice of Surgery, now before us. It will be appreciated not only by the general practitioners, but the specialist, who wishes to be *en rapport* with the advances in those departments of medicine not strictly within the range of this work. Few of us, except those who practise general surgery, have the pecuniary means or time to wade through a bulky treatise on this topic. Many of us, and perhaps the best, are often obliged to accept opinions and methods, provided they have the stamp of a proper experience and the recommendation of a sound practitioner. These remarks apply to the case in hand. This little volume of 316 pages will be found an excellent manual for rapid reference. It is not complete, for it would be impossible to review even the outlines of the whole subject satisfactorily in so small a space; but it contains all that can fairly be expected of such a book. The errors are mostly in the field of surgical pathology, and are of little importance, or in the way of omissions; but the American editor has fairly atoned for this latter defect by inserting a very large number of notes, so that the whole subject is brought fairly up to date. The bracketed additions give us a short, clear, and succinct account of Bigelow's method in crushing a stone at a single sitting (litholapaxy); Buck's extension treatment for fractured thigh; Volkmann's method of amputating the rectum; Sayre's treatment of hip and spinal disease; Otis's plan in urethral strictures; Shrady's operation for tying the lingual; American studies on carcinoma, with their practical deductions; American researches on fractures, especially in those of the clavicle, and at the wrist, with new plans of treatment; Howe's rules for transfusion of blood; American methods in suspended animation; the use of Martin's elastic bandage; Heaton's radical cure of hernia by the subcutaneous injection of an irritating solution, and dozens of minor points that have suggested themselves to an ingenious and experienced surgeon.

COUNSEL TO PARENTS ON THE MORAL EDUCATION OF THEIR CHILDREN. By Dr. ELIZABETH BLACKWELL. Pp. 160. New York: Brentano, 39 Union Square.

THE writer, an esteemed practitioner of this city, takes high ground in favor of sexual morality, and, with Mr. Paget, combats the opinion that purity and perfect health are incompatible. She, however, advocates matrimony as the fulfilment of the social and physiological relations of the sexes. Still further, she maintains that this state tends to the elevation of both. The work, intended as it is for conscientious humanitarians, is a timely one, to be studied with profit, and reflects no little credit upon the writer. Its appeals to "the higher law" which should govern the race, if it expects to avoid degradation and eventual destruction, are made with justice and force.

A MINISTRY OF HEALTH AND OTHER ADDRESSES. By BENJ. WARD RICHARDSON, M.D., etc., etc. New York: D. Appleton & Co. 1879.

THIS publication comprises a number of agreeable addresses delivered at different times by the author, the first of which gives title to the work. To an eulogy on "William Harvey" succeeds "A Homily Clerico-Medical," in which the inter-relations of the two professions are portrayed in a very kindly manner. "Learning and Health" might more properly be designated "Health as Influenced by Methods of Learning." In this article the author indulges in sundry flings at medical specialists, and asks why clergymen do not also seek out special sins for reformation. The Procrustean mode of teaching with the avowed object of stimulating precocity, and with the usual result of early death, also shares the earnest invectives of our author. He points out that

the intellect of the world can be made up of only two classes of minds—the analytical and the synthetic—the one to sift out details, and the other to construct. Each should have its own intellectual work; and work, when congenial, becomes amusement. After a condemnation of the prize system as being fundamentally bad, we meet with the apt formulation of the whole argument, "Do not push on the strong, but help the feeble." "Vitality, Individual and National," is the fifth in the series of essays, and, as a statistical study, is comprehensive. To the Hebrew is awarded the palm of superior longevity, his triumph being due to persecution, which compelled him to husband his physical as well as material resources. Excessive athletic culture, worse than useless, is responsible for lost vitality, while purity, simplicity of life, mental culture, and absence of monotony tend certainly and surely to longevity. In the essay, "The World of Physic," our author deals with "the mutual relationships of the community of physic and the community at large." The warmth of the eulogy is somewhat toned down by a droll humor and a quaint bit of satire at the expense of a good Lama of Thibet. The article, though it contains many hygienic suggestions, is, on the whole, more hortatory than instructive. "Burial, Embalming, and Cremation" follow next in order. Burial in wicker coffins, on the third day after the demise, is advocated as establishing the fact of death and preventing injury to the living. Cremation, stripped of its fascinations, is held to be a failure in relation to natural economy, but more especially from a medico-legal standpoint. In brief, the formula "dust to dust" is both logically and rhetorically paraphrased. The tenor of the chapter on "The Registration of Disease" may be readily inferred. "Ether-drinking and Extra-alcoholic Intoxication" closes the collection. "Free as we are," says the writer, "when we are running in concert with nature, we are stopped whenever we try to go our own way."

To say that this series has interested us is no more than a truthful statement. The style, notwithstanding its diffuseness, is elegant and much in vogue on the platform. Intended, as the addresses were, for a miscellaneous audience, it would be unfair to criticise with severity; but the statement of facts is given with candor, and the conclusions, somehow or other, fall in line with the reader's convictions.

THE MULTUM IN PARVO REFERENCE AND DOSE BOOK. By C. HENRI LEONARD, M.A., M.D. Third edition. Revised and enlarged. Detroit, 1879.

A HANDY "vade mecum," which gives numerous anatomical, obstetrical, and therapeutical details. It is concise, epigrammatic, suggestive, and altogether an admirable remembrancer.

THE HEART AND ITS DISEASES, with their Treatment, including Gouty Heart. By G. MILNER FOTHERGILL, M.D. Second edition (entirely rewritten), with illustrations. Philadelphia: Lindsay & Blakiston. 1879. 8vo, pp. 476.

WHEN a physician, by the end of his tenth year in practice, has made himself a reputation as a prolific writer, it is natural to scrutinize pretty closely the fresh productions of his pen. Dr. Fothergill, besides his work on therapeutics, has written numerous monographs and papers for societies, is a regular correspondent of an American medical journal, and now rewrites entirely his work on diseases of the heart. Yet, Dr. Fothergill, although the matter that he writes is not always the best, has always written well, and he shows a thoroughness of scientific knowledge, a positiveness concerning therapeutical methods, and a warm enthusiasm in all subjects that he treats, which makes his writings popular, and, in a somewhat less degree, valuable.

The book before us is a great improvement in style over the first edition, and it is much more complete in matter. Dr. Fothergill always writes in an attractive way: one feels that an earnest man has hold of the pen, and is imparting some of the warmth of his own personality to the lines.

He is in marked contrast, in this respect, to our countryman, Dr. Austin Flint, who is clear, correct, and well-balanced, but as cold and unsympathetic as an annual report. Their respective works on diseases of the heart should hardly be compared. Dr. Fothergill's is distinctively that of a physiological therapeutist; Dr. Flint's that of a clinician. Dr. Flint's will serve quite as well for the ordinary practitioner; Dr. Fothergill's is vastly more interesting. As some little opprobrium hangs over physiological therapeutics, we may say that the treatment and practical suggestions in the two books do not differ very essentially.

The general method of arrangement in the present edition does not differ much from that of the previous one. The subject is introduced with a chapter on the evolution and physiological anatomy of the heart, which is rich in scientific interest, and contains the latest facts upon the subject in hand. The next two chapters cover the physical examination of the heart. The tracings given by the sphygmograph and their indications are written upon by Dr. Balthazar Foster.

The various diseases of the heart are then treated of in the usual order.

As regards therapeutics, we find the author's remarks here, as elsewhere, suggestive and in general judicious. Dr. Fothergill is, however, given too much to dogmatism and digitalis; his mind, indeed, is somewhat saturated with the latter potent and valuable drug. He recites the case of a woman who took it for forty years for disease of the heart, always feeling worse when she left it off. It strikes us that the alcohol in that digitalis must have been very good and the digitalis very bad. At any rate, it is wrong to relate a case which may leave the impression that digitalis continues to act as a heart-tonic for forty years.

In discussing acute endocarditis, the author insists strongly on the necessity of perfect rest and sedatives during and for some time after the disease, in order to lessen the likelihood of subsequent organic lesions. The point is an important one, and its forcible presentation here will do much service.

A very interesting chapter is that upon the gouty heart. The author takes the ground that in lithiasis there is a change in the arteriole walls, an increased arterial tension, a consequent cardiac hypertrophy, and eventually dilatation, mural and perhaps valvular changes—in fact, serious organic disease. These facts are to be borne in mind in the treatment of lithiasis and its renal complications.

Dr. Fothergill has not yet reached the rank of a classical writer. His style is still occasionally careless; he repeats himself, and some of his chapters, as that on the gouty heart, lack systematic arrangement. The book, however, is, on the whole, the best extant on the subject.

Reports of Societies.

IOWA STATE MEDICAL SOCIETY.

TWENTY-EIGHTH ANNUAL SESSION.

Held at Des Moines, Iowa.

DR. G. P. HANAWALT, PRESIDENT, IN THE CHAIR.

(Special Report for THE MEDICAL RECORD.)

THE Society convened in Odd-Fellows' Hall, in the city of Des Moines, January 27, and was called to order at 10 A.M. by the President, DR. G. P. HANAWALT, of Des Moines. REV. C. S. REYMAN opened the meeting with prayer, after which JUDGE G. G. WRIGHT, (late U. S. Senator from Iowa), delivered an interesting and eloquent address of welcome. All the officers were present, and the Committee on Credentials, reporting from time to time, showed an aggregate attendance of about two hundred.

THE LEGAL STATUS OF THE MEDICAL PROFESSION OF IOWA.

At 2 P.M. of the first day, the President delivered his annual address. His subject was, "The Legal Status of the Medical Profession in Iowa; its Rights, Duties, the Measure of Damage for Malpractice, and the Special Privileges and Prohibitions of that Class." He spoke particularly of the contrast between the provisions of the Code relating to the practice of law and medicine in the State; of the fact, that while several pages are devoted to the former, detailing the requirements, etc., of lawyers, only a few sections are devoted to the physician. In regard to the measure of damages, he said: "The jury is first to determine the condition in which proper treatment would have left the patient; how much more he would have earned in that condition than in that fixed by the actual treatment; and how much more it costs to keep him in the latter than in the former condition. It is also to consider the expectancy of life in both conditions. Theoretically, the jury should return in their verdict pecuniary damage in an amount sufficient to make his estate what it would have been if properly treated. Under this rule, that malpractice which results in *death* does not entitle the estate of the deceased to so great damages as if he had been left a bedridden, irritable paralytic, since, in the former instance, the estate loses but the earnings of the deceased and advanced funeral expenses, which must have come some time." He also considered this question:

"WHAT IS THE STANDARD OF PROFESSIONAL SKILL AT PRESENT REQUIRED OF AN IOWA PHYSICIAN BY LAW?"

"Against quacks and impostors, society has no protection in law-abiding Iowa. Our statutes afford no protection to patients nor encouragement to skilful physicians. The Code of Iowa requires the *lawyer* to be twenty-one years of age, a resident of the State, requisite learning, good moral character, etc. It prescribes for him several articles in matters of professional ethics, and an oath to maintain them; it also prescribes a civil liability for treble damages for any malfeasance resulting in loss, and a criminal liability for wilful wrong-doing, with the severe penalty of disbarment."

The doctor referred to two cases before the Supreme Court of Iowa, in which damages were claimed for alleged malpractice. In the absence of any statute defining the professional standard of a physician in Iowa, the majority of the court decided that one claiming to be a surgeon or physician was not required or expected to be "thoroughly educated" in his profession, but "the true measure of skill is that ordinarily exercised in the profession by the members thereof as a *body*." "Not that exercised by the *thoroughly educated*, nor yet that exercised by the *moderately educated*, nor merely of the *well* educated, but the *average* of the thorough, the well, and the *moderate*."

Respecting this the doctor said: "At the risk of being confronted some day in open court with my own opinion, I declare it to be that the standard of professional excellence prescribed by the opinion referred to above, is unworthy the profession in Iowa —a standard that any good physician would dislike to be represented by in conversation, however it might delight him if prosecuted for malpractice."

THE COMMITMENT OF THE INSANE.

A communication was received from the Scott County Medical Society relative to the "commitment of the insane," criticising the present law which requires the Board of Commissioners to consist of one lawyer, one doctor, and the clerk of the court, thus putting a majority of the board against the physician; also requiring that the criminal insane be not placed with the others, and recommending also some measures for the proper care of the *incurably* insane, who now, for want of better provision, were kept in our county poor-houses. The communication was referred to a special committee, who reported that the matters recommended were now being considered by the Legislature, and they recommended that the Society defer action until it was ascertained what was done by that body.

A NEW METHOD OF ARRESTING PUERPERAL ECLAMPSIA.

DR. G. M. STAPLES, of Dubuque, read a paper on "A New Method of Arresting Puerperal Eclampsia," of which the following is a brief abstract:

Dr. Staples claims to have promptly arrested puerperal convulsions with uninterrupted success for nine years past with hypodermic injections of veratrum and aconite, every twenty to thirty minutes, until the system was brought under their influence. Average dose, four to six drops of the former and two to three of the latter.

Norwood's tincture of veratrum and tincture of aconite root usually employed. Effects will be observed in fifteen minutes, and no ill results have been experienced in the punctures. He reports three cases in full from among those treated in this manner, in which the results were most gratifying.

In all three post-partum convulsions were present; patients were profoundly comatose; spasms were frequently recurring, and in one all other remedies had been exhausted in vain. He finds the two drugs combined more efficacious than the veratrum alone, while a smaller dose is required. He further claims that this treatment is equally efficient in spasms from other causes, and reports at length a remarkable case of a child suffering from protracted and incurable cerebral disease, where the convulsions were constantly arrested through several months after all the usual means had failed.

The paper elicited considerable discussion, participated in by Drs. Waples, Fitch, and Rawson of Corning; Tomson, Staples, and Archibald, in the main concurring with the treatment as recommended in the paper.

PARACENTESIS OF THE PERICARDIUM, WITH AUTOPSY.

Dr. Staples also made a report of a case of paracentesis of the pericardium, with autopsy, of which the following is a brief epitome:

Dr. Staples had, in June last, read a paper at the State Society, detailing a case of paracentesis of the pericardium, upon which he had successfully operated on the 7th of June, 1877. Patient was a child nine years old, and had suffered for several months, as alleged, from rheumatism. Child fell into his hands and he diagnosed hydropericardium, with cardiac hypertrophy and mitral insufficiency, and operated by aspiration, when patient was almost in articulo mortis, removing sixteen ounces of fluid. Great relief followed and patient recovered a fair degree of health, but never became quite well. There was slow but progressive hypertrophy, and patient died from effusion into brain, December 2, 1879, two years and six months after operation. The doctor thought his case took precedence of the one reported in the *Medical News and Library* for March, 1878, by Prof. Pepper, of the University of Pennsylvania, operated on September 11, 1877, by Prof. P., and claimed by him to be the second successful case in this country.

The present paper of Dr. S. gives results of the autopsy, which fully confirmed the diagnosis.

Pericardium universally adherent and heart enormously hypertrophied, weighing twenty ounces. Right ventricle and left auricle contained antemortem clots (latter greatly dilated with endocardium, roughened and gritty). Mitral insufficiency with cartilaginous degeneration of valve. No trace of puncture, and pleuræ healthy, except two or three adhesions on right side.

Dr. S. concludes that life might have been indefinitely prolonged had the operation been earlier performed.

OVARIOTOMY AND THE VALUE OF ANTISEPTICS IN THE AFTER-TREATMENT.

In the evening session, Dr. J. Williamson of Ottumwa read a paper on "Ovariotomy by Enucleation, with Remarks on the Value of Antiseptics in the After-treatment." The paper was listened to with interest. A brief synopsis of the case, with a letter from Dr. Bozeman, was published in the Medical Record of January 17th.

Immediately following, Dr. G. R. Skinner of Cedar Rapids read a paper on "A Case of Ovariotomy," which was singularly corroborative of Dr. Williamson's case, using successfully large doses of quinine and opium, which proved antiseptic, and depending almost entirely upon rectal alimentation and medication.

Dr. Angiar stoutly denied that material injected into the rectum could be absorbed, especially albumen. He said it was contrary to physiology. Several of the members gave instances that were at variance with physiology, as enunciated by Dr. Angiar.

Dr. Rawson spoke of a case which, as a sequel of diphtheria, had stricture of the œsophagus, and which for the last three weeks had been solely nourished by rectal alimentation. During the discussion Dr. Rawson gave a case of a girl, thirteen years of age, who had an ovarian tumor; she was tapped, and about six quarts of characteristic fluid was drawn off. The drainage through the trocar opening continued for some time, resulting in complete cure.

SOME OF THE NEW IDEAS OF THE NERVOUS SYSTEM.

Dr. W. D. Middleton of Davenport read an interesting paper on "Some of the New Ideas of the Nervous System," of which the following is a brief summary:

The author examined briefly the ideas of the "localization" of nerve-power, giving the latest observations in cell-structure, arterial supply and function, as established by physiological experiment and pathological changes. He also examined at length the recent ideas of Dr. Brown-Séquard in opposition to this new departure in nerve-science, and to what he calls the "old ideas." After many citations of cases brought forward by Dr. Brown-Séquard as inexplicable by usual brain theories, and their explanation in logical manner, from the observations of Flechsig on the cord, and other recent observations, the author commented on the sad picture of such a mind in its present iconoclastic attitude, expressed the opinion that progress lay only in a direction opposite to that of this man's present course, and predicted, in the not distant future, a complete organology of the contents of the cranium, by steady and faithful work.

ELEVATION OF TEMPERATURE AND TISSUE-CHANGE.

The following are the conclusions of a paper read by D. Scofield, M.D., of Washington:

(a.) That any elevation above the normal temperature of the body is attended by increased tissue-change. *(b.)* That the products of metamorphic change, when not properly and speedily eliminated, are toxic to the system, and cause not only an elevation of the temperature of the body, but also glandular derangement. *(c.)* That the autogenetic poison of pyrexia, and the specific poison of typhoid fever, are in many respects similar, having each a tendency to the same organs and glands, and are both alike amenable to the same general plan of treatment. *(d.)* That treatment, to prevent and control the typhoid condition, must necessarily embrace such means as are efficient to speedily reduce the temperature, and call into increased activity the secerment organs of the body.

Dr. J. L. Powers, of Rembeck, detailed two cases of crural phlebitis, one following parturition, the other in a man, forty-five years of age, of intemperate habits. Both cases had been treated on general principles indicated in such cases, but with little benefit for several days. Prompt and speedy relief was, however, obtained in each case by the application of a "tobacco salve."

TREATMENT OF DIPHTHERIA BY QUININE.

Dr. M. G. Sloan reported thirty-four cases of diphtheria treated successfully by quinine in large doses, alternated with sulpho-carbolate of sodium. He used locally zinci ferri chlor. and glycerine, applied gently to the affected parts, and in four cases of laryngeal complications he cured three by the use of inhalations of lime-water with the constitutional remedies named.

QUININE AS AN ANTI-CONGESTIVE REMEDY.

Dr. J. M. Knott, of Sioux City, read a paper on "Quinine as an Anti-congestive Remedy," of which the following is a brief résumé:

Quinia is a safe and certain equalizer of the circulation in all cases, whatever the type of disease, in which there is a tendency to local or general engorgements, and through this agency powerfully resists the formation of congestions in the early stages of disease, disperses them when already formed, and thus prevents an impending inflammation. When

he inflammation is already established, no remedy ‘ill, in the same degree, modify the attack and hasten he stage and process of resolution. The quinia will ›roduce the equalizing action unaided, and favor limination by skin and kidneys of the débris of sys-em, or poison, as the case may be. But the results ›re far better when it is aided in its work by a diu-etic and diaphoretic. (Profuse diaphoresis is de-irable.) This anti-congestive treatment is appro-›riate in all acute infections, and acute inflammatory liseases, and the inflammations due to injuries and ›urgical operations. When the patient is first seen never wait for preparatory treatment), administer ix or eight grains of quinia, combined with one rain of Dover's powder, and afterward two or three rains of quinia, with half a grain of Dover's pow-ler, every three hours. Alternate this powder with n average dose of potassa acetate. This course hould be pursued until the disease yields, when the nterval between the doses should be gradually ex-ended, and the diaphoretic omitted. These views are based upon an extensive use of the remedy in the nanner indicated, covering a period of eight years.

THE USE OF ANÆSTHETICS IN LABOR.

A paper was read by DR. H. L. GETZ, of Marshall-own, Iowa, on "Anæsthetics in Obstetrical Prac-ice."

Dr. Getz stated that the pain and suffering inci-lent to childbirth is, in what may be termed ordi-nary cases, often quite as severe and terrible to endure for woman as would be the amputation of a imb without the use of an anæsthetic.

Physicians, surgeons, or obstetricians, who do not elieve pain when it is in their power so to do, are leserving of being called barbarians in practice, no matter what the cause of pain is.

Having administered anæsthetics in over one hun-lred obstetrical cases, he gave the following as the conclusions he had arrived at:

Ether, though a safe anæsthetic, was not well calcu-ated for such, on account of its slowness of action; ts tendency to produce nausea and vomiting, aver-ion for food, and other minor objections. Nitrous oxide also had its objections, viz.: inconvenience of dministration, and a tendency to excite rather than o calm, unless completely under its influence.

As a rule, he preferred chloroform for the following easons:

A small quantity was sufficient; it was quick in its ction; not usually irritating to the air-passages; eldom produced nausea and vomiting; it relieved all gonizing pain; it retarded the progress of a case of abor, but in some cases it expedited it. It was neither injurious to mother nor child if carefully and roperly administered.

The instances in obstetrical, as in surgical practice, where anæsthetics are contraindicated, were organic lisease of heart or lungs. The new anæsthetic, nown as "bromide of ethyl," employed in a number f surgical cases in hospital practice by Dr. R. J. Levis, of Philadelphia, would probably be a good ubstitute for chloroform. There was claimed for it uicker anæsthesia and quicker recovery. He in-ended to try it in obstetrical practice.

Complete anæsthesia may be produced by chloro-orm without in the least degree influencing the con-ractions of the womb. A woman might be so com-letely under its influence as not to be able to exert muscle, and yet the contractions of the womb con-inue regular and strong, so that the head and body f the child were born unknown to the mother. An excessive anæsthesia should always be guarded against.

The expulsive muscular power of the abdominal muscles, which is lost by the use of chloroform, is more than compensated for by the greater readiness with which the perineum yields. Placing the hand over the region of the womb, and at each contraction carefully and gently simulating the contractions of the organ, you might assist in this artificial manner to a greater extent in the expulsion of the child than could the muscles possibly do were no anæsthetic employed. So long as the function of respiration and the involuntary contractions of the heart continued, the involuntary contractions of the womb would also continue. He believed that though a patient have sufficient chloroform administered to cause the heart to cease beating, the contractions of the womb would cease later.

The perineum lost its resistance in an equal ratio to the amount of chloroform administered.

There was no more danger of post-partum hemorrhage where anæsthetics are employed during labor, than where they are not. He had not seen one case of serious hemorrhage where chloroform had been used during labor; had seen it where it was not used. The pain incidental to confinement might, if not relieved by anæsthesia, produce sufficient shock to at least temporarily suspend the uterine contractions, and it was by avoiding this that chloroform might act as a preventive of post-partum hemorrhage. It did not affect the general health of the mother, it did not retard her convalescence. It was desirable in most, if not all, forms of disease, to keep the patient as calm and quiet as possible, to avoid all excitement; by the use of chloroform perfect composure of mind and body might be maintained, and it might be in this way that chloroform had a tendency to aid in recovery; and it might also have a tendency to avoid inflammatory troubles occurring after childbirth.

Chloroform would control puerperal convulsions in some instances, when all other remedies seemed to fail. It should be administered in all ordinary cases. In protracted obstetrical operations, ether would, as a rule, be safer. Anæsthetics should, as a usual matter, not be administered during the first stage of labor; the pain, though somewhat aggravating, is not usually so severe. If the patient, however, is nervous or irritable, enough to calm and quiet her may be given with good advantage.

Papers were also read by Drs. J. J. M. Angiar, of Fort Madison; Gustavus Hinrichs, of Iowa City; W. F. Peek, of Davenport; C. M. Hobby, of Iowa City; H. M. Dean, of Muscatine, and others.

The following officers were elected:

President, S. B. Chase, M.D., Osage; 1st Vice-President, T. J. Caldwell, M.D., Odell; 2d Vice-President, L. J. Alleman, M.D., Boone; Secretary, J. F. Kennedy, M.D., Des Moines; Assistant Secretary, M. H. Waples, M.D., Dubuque; Treasurer, G. R. Skinner, M.D., Cedar Rapids.

Dubuque was selected as the place for holding the next meeting of the Society, which will be on the last Wednesday in May, 1881.

PROVINCIAL BOARD OF HEALTH FOR ONTARIO.—Influential men are urging the formation of a health board for the Province of Ontario. It is likely that the movement will be a successful one. There are attempts also being made to collect health news from every part of the country, the data obtained to be published regularly from a central health office.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, Jan. 6, 1880

DR. L. C. GRAY, VICE-PRESIDENT IN THE CHAIR.

THE Society was called to order and the minutes of the last stated meeting were read by the Secretary, Dr. Wm. J. Morton. The Council reported in favor of the election of Drs. Guy D. Daly of Flatbush, J. B. Matthews of Brooklyn, and L. Weber of New York, as active members, and the Society adopted the report.

THE HYSTERICAL ELEMENT IN ORTHOPÆDIC SURGERY.

The discussion on DR. SHAFFER'S paper on the above subject being next in order, he recapitulated the points which it contained as follows: he wished to direct attention to the muscular condition as an aid to differential diagnosis between true and simulated joint-disease, especially with reference to hip-joint disease and club-foot, the two conditions most liable to be simulated in consequence of the neuromimetic state. He also called attention to the invariable character of the muscular spasm in the true, while in the simulated joint-disease or in the neuromimetic state it is variable. In the simulated condition faradic contractility is normal, while in the true arthritic affection faradic reaction is diminished. In the false joint-disease atrophy of the muscles may occur from disease, while in the true affection there is genuine wasting of the muscles.

DR. HAMMOND remarked that he had seen cases corroborative of Dr. Shaffer's views, and referred to one in which there was notable atrophy of the muscles. The patient for three years was supposed to have actual knee-joint disease, and had worn a mechanical appliance. Competent surgeons pronounced it a case of true joint-disease. From certain general appearances he was led to diagnosticate hysteria, and seizing her by the hands, dragged her about the room—a method of treatment suggested by Meyer—and she at once walked perfectly well, and the cure was permanent.

DR. MARY PUTNAM-JACOBI asked if hysterical contraction yielded to the faradic current, and reported a case in which the patient had the left arm and right ankle tensely flexed—so much so that passive motion was difficult. Faradism was employed, and a cure effected.

DR. SHAFFER thought that Dr. Jacobi's case belonged to the emotional variety, and differed from the hysterical contracture described by Charcot.

DR. E. C. SEGUIN had been impressed by the fact that, in cases of joint and spine disease, the subjective element preponderates. The impression still remained in the mind of the profession that pain in the region of the spinal column indicates that there is real lesion of the spinal cord. On the contrary, there may be acute pain and no lesions whatever. A parallel existed between the neuro-mimetic spine and functional heart disease. In both, much pain was against real lesion, and, *per contra*, grave disease existed without the subjective evidence. He related two cases: one illustrating the hysterical element in both ankles, and the other in the left wrist. The first patient was a child who had extreme pain in both ankle-joints, without redness, swelling, or other signs of inflammation. The second patient was a precocious girl, who had intense pain with contracture affecting the left wrist. With the father's consent the girl was imprisoned in a dark room until the second day, when she was well.

DR. J. C. PETERS asked how great the difference was between the pain of the myelitis and that of spinal tenderness.

DR. SEGUIN replied that the difference was gigantic. In myelitis the spine could sometimes be pounded without producing pain; whereas, in spinal tenderness, extreme pain could be produced by slight pressure. He thought the diagnosis of spinal meningitis was altogether too common, aside from its existence in cerebro-spinal meningitis.

DR. PETERS remarked that he had been astounded to find how many considered tenderness of the spine as a symptom of real lesion.

DR. T. A. MCBRIDE referred to a case of a lady who had pain referable to the spine, with hemi-dysæsthesia and pain in the right inguinal region, with tender spots over the spinal column. She was visited by a surgeon acting for a railroad company, who diagnosticated railroad spine, and the lady recovered damages. The patient was of a nervous diathesis and given to self-abuse; her affection was hysterical, and she recovered.

He also mentioned a case of hysterical anuria, with right hemi-anæsthesia and left analgesia, and pain in the joints of the fingers.

DR. BRIDSALL remarked that Dr. Putnam-Jacobi's case recalled cases which he had seen under Charcot's care, in which the hysterical contracture was temporarily arrested by a series of electric sparks—dynamic electricity. In those cases ordinary faradism or galvanism had produced no effect.

DR. GRAY asked Dr. Shaffer if he had tested the muscular reaction by galvanism as well as by faradism.

DR. SHAFFER had contented himself with faradism, and had applied it in two hundred cases.

The Society then listened to the Report of the Committee on Asylum Abuses, after which it adjourned.

THE PHILADELPHIA ACADEMY OF NATURAL SCIENCES.

MICROSCOPICAL AND BIOLOGICAL SECTION.

Regular Monthly Meeting.

DISCUSSION CONCERNING THE CAUSE OF PLEURO-PNEUMONIA IN CATTLE.

DR. CHARLES TURNBULL read a paper on the peculiar round worm, or strongylus, infesting the air-passages of calves, which Dr. McCoart had been recently reported, in the Philadelphia daily papers, to have assigned as the cause of the supposed contagious disease of cattle known as pleuro-pneumonia.

Dr. Turnbull gave a very full and satisfactory account of the parasite, tracing its life-history through its various phases, some of which were supposed by eminent authorities to be passed in the intestine of the common earth-worm. From this intermediate host they were supposed to find their way to the grass and herbages eaten by the cattle, and thus be taken into their mouths, stomachs, and air-passages, causing a great amount of irritation and consequent expectoration when they have attained their adult state, and giving rise to the disease known as parasitic bronchitis, husk, or hoose. It most frequently affects animals pasturing on low, wet grounds, the relation between the parasite and abundance of earth-worms and their kindred varieties being evident.

DR. GADSDEN, being introduced, said he was not a

little surprised to read, in a report of the proceedings of the last meeting of the section, that these parasites were the cause of the disease known as pleuro-pneumonia. He thought it had been demonstrated beyond all possibility of doubt, by some of the most distinguished veterinarians, that the disease was specific and malignant, and was spread by the infection of healthy animals, through the medium of a specific virus derived from diseased ones. Many authorities were cited by the speaker, besides cases of his own in this country and England, to prove that such was the case. If this is not the case, then it is certainly to be considered a great waste of money by the State and general government to have appointed inspectors and established a system of quarantine over herds of cattle known to be affected, in order to prevent the spread of the disease. Not only does the anti-contagious doctrine reflect upon the wisdom of the policy of the State and general governments, but also upon a large and intelligent class of veterinarians, such as Professors Law and Gamgee. The fact of the existence of the disease in the United States interferes greatly with our export trade in live meat with England, whose House of Commons recently prohibited the importation of American cattle, which, on the authority of one of our government reports, were said to be diseased.

Dr. McCoart, being present, stated that he was very sorry, indeed, to have been misunderstood, and said that he did not mean to imply that the filariæ were the causes of pleuro-pneumonia, as he had been reported to have said. What he meant to convey was that parasitic bronchitis, or hoose, no doubt was often mistaken by amateurs for real pleuro-pneumonia. In reply to a question by Dr. Gadsden, Dr. McCoart replied that he did not consider that it had been proved that the disease was contagious.

Dr. Gadsden left some specimens of the diseased and healthy lungs of cattle for microscopic examination by the members. It was remarked that in pleuro-pneumonia but one lung was affected, the one on the other side remaining healthy. The diseased lung is filled up almost to solidity with lymph, and weighs as much as fifty pounds, while a healthy one weighs but three and a half pounds.

After further remarks by Drs. Seiler and Turnbull, the discussion was closed.

Correspondence.

SUCCESSFUL CASE OF TRANSFUSION.

To the Editor of The Medical Record.

Sir:—I went, during the month of August last, into Cheshire County, New Hampshire. While there, I was asked to see a patient of Dr. Richardson, in a consultation with Dr. Geo. B. Twitchell, of Keene, both of whom have been in successful practice for the last thirty-six years. On the day appointed for the consultation, Sunday, August 18, the attending physician, Dr. Samuel Richardson, was unable to appear on account of sickness, so we lost the benefit of any information that might have been gained from him. The patient herself gave the following history:

Mrs. B., widow, aged forty-five. Five weeks previously, while in an attic, she accidentally stepped from a beam (there was no floor) upon the lathing, and fell partly through into the room below, injuring her stomach, bowels, and back. Directly after this accident, she had severe cramps in stomach and bowels, followed by vomiting and constipation; the vomiting had continued every day, with the exception of five days, for five weeks. Dr. Richardson being absent, Dr. Twitchell took charge of the patient, and I saw no more of her until August 23, when I went on a visit to the house, and on account of her critical condition my stay was prolonged from two to ten days.

The gastro-intestinal catarrh became so severe that all nourishment was rejected; even a few drops of water would cause violent retching, and she was nourished with enemas of milk. After the 28th these were not retained, and her condition became exceedingly critical. At two o'clock of the morning of August 29th, I was called up and told she was dying. I found her without any pulse at the wrist, her respirations but five per minute, and her mind wandering; she was evidently in extremis. I gave her one drachm of carbonate of ammonia by injection, and though passed soon after, it had the effect of producing reanimation. About 9 A.M. of this day, I commenced to use injections of defibrinated blood, which were retained; still, at the same hour the succeeding morning I was again called, and was again obliged to administer the carbonate of ammonia by enema, with same effect as previous morning.

Saturday, Aug. 30.—As there was no very material improvement from the blood enemas, Dr. Twitchell and I canvassed the propriety of transfusion; we thought of sending to New York for instruments, but soon learned they would not arrive before Monday night, when our patient might be beyond our ministrations.

Dr. Twitchell had an old-fashioned canula, used by his deceased uncle, but no trocar to fit; having this simple instrument, and an ordinary pocket case, we determined to improvise the rest. We selected the fountain syringe as the most compatible apparatus, and appointed Sunday, at 11 A.M., for the operation. At that time, Dr. Twitchell arrived, and after some time spent in argument, a son of the patient consented to have the required amount of blood taken from his arm, whereupon Dr. Twitchell opened his median cephalic vein, from which we drew from six to eight ounces of blood, which was kept in motion by a tablespoon during the venesection, and afterward was strained or filtered through an ordinary pocket-handkerchief to remove any possible coagula; the quart-bowl was then placed in a pan of warm water; the fountain syringe was filled with the water, for the double purpose of cleansing and warming. With this simple apparatus we proceeded at once to the patient's room, where our efforts, for a time, were very disheartening, from the fact that fatal syncope threatened to supervene the moment the operation was commenced, and it was rendered more difficult from the emptiness of the veins. Instead of using trocar and canula, as we might have done with Collin's apparatus, a dissection was necessary, after which the vein was lifted up, opened, and the canula inserted. This had a shoulder about half an inch from the end, to prevent the blood from returning from the wound during the transfusion. To the free extremity of the canula we attached the hose of the fountain syringe; after filling both with the blood kept at the right temperature, the rubber bag was then elevated about four feet above the patient, who remarked to the assistant in a whisper (she could not speak aloud), "I feel that blood." From some defects in the foot of the canula a portion of the blood was lost upon the bed-clothing, and we concluded to supple-

ment it by more from the vein, as we removed the dressing and drew six ounces more. This we were able to inject entire.

Directly after the operation the patient's lips showed an increase of redness, the cheeks were flushed, and the pulse was greatly improved. Soon after this she complained of "tightness of the chest," and during the next twelve hours had some elevation of temperature, but no chill; slept some that night, and next morning commenced to take nourishment; during the next twenty-four hours she was able to retain one table-spoonful of fresh milk every three hours, the first nourishment by stomach for six days and nights. The milk diet, with a slight increase in quantity, was kept up until Tuesday, at 2 P.M., at which time I returned to New York and am indebted to Dr. Twitchell for further particulars, which I can give in no better way than quoting his letter of Sept. 17th.

"KELSO, Sept. 17, 1879.

"MY DEAR DOCTOR:—I presume you have heard from our patient. She continued to improve after you left. The only drawback was an ophthous inflammation of her mouth and throat, but this was almost entirely gone when I saw her last, and I saw no reason why she would not come out all right. I saw her on Thursday last, Sept. 11th, and since then have heard nothing unfavorable, so I do not doubt that she is doing well, and our operation of transfusion was a success. I shall be the more ready to resort to it again. . . . . .

Yours truly,
GEO. B. TWITCHELL.

I would here add that I received a letter from this patient a few days ago, reporting her complete convalescence.

Yours truly,
S. A. MASON, M.D.

75 EAST SIXTY-FIRST STREET, N. Y.

THE CURE OF CATARACT BY ELECTRICITY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Under the above heading the following remarks appeared in the last issue of the MEDICAL RECORD: "It will, no doubt, delight members of the profession, and oculists in particular, to be informed, on the authority of the *Churchman* (which claims positive knowledge), that Dr. Neftel cures cataracts . . . . . by certain electrical manœuvres."

The subject is certainly of high interest to the profession in general, and to oculists in particular, and they will probably now read my article in Virchow's Archives.

I may perhaps add a few words with reference to the history of the subject. My first researches on the optic apparatus, made about twelve years ago, were published in 1871, but scarcely attracted any attention, and were even ignorantly ridiculed by a reviewer in the *Richmond and Louisville Medical Journal*. I continued, however, my investigations, and published the physiological and pathological part in the *Archiv für Psychiatrie und Nervenkrankheiten*, which was favorably commented upon by Professor Rosenthal, of Vienna, the author of the excellent works on nervous diseases.

With the publication of my article on the electrical treatment of cataract in Virchow's Archives, I hope there will be no excuse for ignoring it.

Yours truly,
WM. B. NEFTEL.

NEW YORK, February 14, 1880.

[The answer is quite satisfactory, as far as it goes, and will doubtless prove of interest to oculists. In the meantime, we take the opportunity of thanking the *Churchman* for so kindly drawing the attention of the profession to the subject.—ED.]

A HERNIAL SYRINGE AND A QUESTION OF PRIORITY OF INVENTION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In the MEDICAL RECORD of February 7th I notice a communication from the pen of Wm. B. De Garmo, M.D., on the Heatonian method of treating hernia, with a cut of an instrument that he has had made for this operation. Considerable time has now elapsed since I had made in this city, by Mr Gemrig, an instrument for the treatment of hernia according to the Heatonian method—an instrument similar in every respect as to the trocar arrangement for concealing the knife or point of needle after puncturing the skin and fascia, and entering the inguinal canal at the abdominal ring; that is, a movable hollow stem or probe, attached to the syringe by a socket-joint; an orifice at the terminal end of the hollow probe on the side, one-twentieth of an inch from the end, for the fluid to be injected on to the rings. Fitting over this tube or hollow probe a sheath one-third of an inch shorter than the hollow probe, with a cutting edge at its distal end similar to an ovarian trocar or the distal end of a hypodermic needle, with a bayonet-joint for locking the sheath to the probe. When set for use, the cutting edge projects over the end of the hollow probe one-fourth of an inch. After perforating the tissues and entering the external abdominal ring, the sheath being held firmly, the hollow probe connected with the syringe is turned so as to unlock the bayonet-joint, and then by gently pushing the syringe the hollow probe is made to enter the inguinal canal; at the same time, the needle or knife is retracted along the side of the probe, which it fits closely, completely protecting the knife, so that no injury can be done to the parts.

This instrument that Dr. De Garmo represents in the cut is the counterpart of the one that I have used for the radical cure of hernia, according to the Heaton method, in the Philadelphia Hospital, in the presence of several members of the surgical staff and resident surgeons, and in a public clinic where several hundred students were present to see the operation. It is now six weeks since three cases were operated on at the Philadelphia hospital with this instrument. I can assure you that I was very much surprised to see my instrument described in your journal. Is it possible that two persons at distant points, considering the same subject at the same time, should arrive at the same conclusions and have made instruments identical, even as to the joints and ring on the sheath for moving that sheath, as well as all other details.

Very truly yours,
WM. S. JANNEY, M.D.,
Surgeon to Philadelphia Hospital.

1535 N. BROAD STREET, PHILADELPHIA, Feb. 9th.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 8 to February 14, 1880.

TAYLOR, M K., Captain and Asst. Surgeon. To repair to Washington, D. C., and settle his accounts with the Treasury Department. On completion of this duty, to rejoin his proper station. S. O. 30, A. G. O., Feb. 7, 1880.

MCELDERRY, H., Captain and Asst. Surgeon. Relieved from duty in Department of the East, to proceed on or before March 1, 1880, to Fort Omaha, Neb., and report in person to Commanding General, Department of the Platte, for assignment to duty. S. O. 29, A. G. O., Feb. 6, 1880.

HOFF, J. V. R., Captain and Asst. Surgeon. To report in person to Commanding General, Department of the East, for assignment to duty at Fortress Monroe, Va. S. O. 29, C. S., A. G. O.

HALL, WM. R., 1st Lieut. and Asst. Surgeon. The leave of absence granted him December 5, 1879, from Headquarters, Department of the Columbia, is extended three months. S. O. 32, A. G. O., Feb. 10, 1880.

APPEL, D. M., 1st Lieut. and Asst. Surgeon. So much of the order of December 29, 1879, as relieved him from duty in Department of the Missouri, is revoked. He will report in person to Commanding General, Department of the Missouri, for assignment to duty. S. O. 32, C. S., A. G. O.

CUNINGHAM, THOS. A., 1st Lieut. and Asst. Surgeon. His leave of absence granted him January 26, 1880, from Headquarters, Department of Dakota, extended one month. S. O. 19, Mil. Div. of the Missouri, Feb. 9, 1880.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 14, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Feb. 7, 1880....	0	6	51	0	240	34	0	0
Feb. 14, 1880...	0	4	31	2	212	41	0	0

OLEOMARGARINE.—A bill has been introduced to prevent the sale of oleomargarine for genuine butter, by obliging sellers to stamp the firkins with the word "oleomargarine."

BURIAL PERMITS.—A bill has been introduced making burial permits issued by the Boards of Health of New York and Brooklyn good in any part of the State.

FOURTEENTH ANNUAL REPORT OF THE CONNECTICUT HOSPITAL FOR THE INSANE, FOR 1879.—The Superintendent, Dr. Strew, reports that 644 patients have been treated in the asylum during the year. Of these, 45 were discharged cured, being 25 per cent. of those admitted during the year. The mortality was 19, or about 11 per cent. on the number admitted. The number in the hospital at the close of the year was 510. A history of the growth of lunatic asylums is given.

PROFESSOR BOLL, of Rome, has recently died. He was the first to study the subject of the visual purple.

SIXTH DECENNIAL PHARMACOPŒIA CONVENTION.—By virtue of authority devolved upon me as the last surviving officer of the Pharmacopœia Convention of 1870, I again call the attention of "the several incorporated State medical societies, the incorporated medical colleges, the incorporated colleges of physicians and surgeons, and the incorporated colleges of pharmacy throughout the United States," to the importance of appointing delegates to the Sixth Decennial Pharmacopœia Convention, and of sending the names and residences of the same to me for publication. The Convention meets on the first Wednesday in May, 1880, and I am required "to publish the names and residences of the delegates, for the information of the medical public, previous to its meeting."

I have received so far, the names and residences of the following delegates:

From the Massachusetts College of Pharmacy, Boston: Prof. G. F. H. Markoe, Ph.G.; Samuel A. D. Sheppard, Ph.G.; Thomas Doliber, Ph.G. From the Philadelphia College of Pharmacy: Prof. John M. Maisch, Alfred B. Taylor, Prof. Joseph P. Remington. From the Louisville College of Pharmacy: Prof. Emil Scheffer, Prof. C. Lewis Diehl, E. Vincent Davis. From the Maryland College of Pharmacy, Baltimore, Md.: *Delegates*—William S. Thompson, Louis Dohme, Joseph Roberts. *Alternates*—Charles Caspari, Jr., Dr. John F. Moore, Dr. Robert Lautenbach. From the Medical Society of the District of Columbia: Prof. D. W. Prentiss, M.D.; Professor Thomas Antisell, M.D.; Emeritus Prof. James E. Morgan, M.D. From the National Medical College of Columbia University, Washington, D. C.: Prof. W. W. Johnston, M.D.; Prof. D. W. Prentiss, M.D. From the Medical Department of the University of Georgetown, D. C.: Prof. W. H. Ross, M.D.; Prof. C. H. A. Kleinschmidt, M.D., and Dr. S. C. Busey. From the National College of Pharmacy, Washington, D. C.: Mr. W. S. Thompson, Prof. Oscar Oldberg, Mr. R. B. Ferguson.

(Signed,) JAMES E. MORGAN, M.D.,
905 E Street, N. W., Washington, D. C.

Washington, D. C., January 20, 1880.

PROFESSIONAL ADVERTISEMENTS.—The names, addresses, specialties, and places of graduation of a number of physicians of Grand Rapids, Mich., appear as advertisements in the *Grand Rapids Daily Leader*. The paper endorses them as representing the reliable medical talent in that place.

OFFICE-THIEVES.—The office-thief is around again. It is well to instruct servants to keep a lookout upon strangers who come at odd hours and insist upon waiting for the doctor.

ATROPIA IN POST-PARTUM HEMORRHAGE.—Dr. George S. Ellis, of Boonville, Miss., writes to us that he has recently used atropia in post-partum hemorrhage with the best results. He was summoned to a case one evening, and found that the child had been delivered half an hour previously. The woman was pale, pulseless, and her uterus distended with blood.

He at once gave gr. $\frac{1}{100}$ sulphate of atropia hypodermically. He then emptied the uterus, kneaded the abdomen, and gave a drachm each of the fl. ext. of ergot and tinct. digitalis. Cessation of hemorrhage and improvement in circulation began at once. Dr. E. attributes all the good effects to the atropia, which, he thinks, acted by stimulating the respiratory and cardiac centres, by stimulating the muscular fibres of the uterus and contracting the arterial walls. Dr. E.'s experience leads him to agree with Dr. Brown-Séquard that atropia acts like ergot.

Reducing the Educational Standard.—The Medical School of the University of London has heretofore had its examinations so rigid that not more than five per cent. of the candidates for diplomas were successful. An examination in mental philosophy was one of the requisites for a degree. It is now proposed to lower this high standard a little, so as to give more students the educational advantage of the school.

Cure of Tetanus.—A case of tetanus cured by chloral is reported by Dr. J. H. White. From $\frac{3}{i}$ss. to $\frac{3}{iv}$. were given daily p. r. n., for three weeks. Another case is reported by Dr. Geo. Ross, cured by chloral and bromide of potassium, with the adjuncts of chloroform and morphine. During the three weeks of treatment, potas. brom. $\frac{3}{ij}$, chloral hydrat. $\frac{3}{v}$., morphia sulph. gr. xxss., and chloroform f. $\frac{3}{ij}$., were used.—*Va. Med. Monthly.*

The Eclectic Medical Institute of Chicago.—The diplomas of this institute failed to be recognized by the Illinois State Board of Health, because they were granted upon practically a one year's course. The institute having recently promised to do better and demand a three years' course of its pupils, the Board consented, at its last meeting, to grant recognition to its graduates.—*Chicago Med. Jour. and Examiner.*

Iodized Phenol.—Battey's formula for iodized phenol, iodine cryst. $\frac{3}{ss}$., acid. carb. $\frac{3}{i}$., is highly recommended by Dr. W. J. H. Bellamy in other than uterine affections. He has found it very useful in certain skin diseases, particularly those attended with itching. In eczema marginatum it works very promptly. It is to be diluted generally with equal parts of glycerine, and applied twice a day.—*North Carolina Med. Jour.*

Medicated Spray in the Treatment of Diseases of the Conjunctiva.—Dr. J. A. Andrews recommends the use of the atomizer in many conjunctival affections. Although not especially hastening cure, it is claimed that much less discomfort and annoyance is given to the patient. The Davidson atomizer is preferable, because it can be worked with one hand. Two per cent. solutions of sulphate of copper, alum, or potas. chlorat., may be used. In corneal inflammation, care must be taken to avoid spraying the cornea.—*Archives of Medicine.*

Georges Herbelin, interne of the Hospital Sainte-Eugénie, Paris, died on January 3d, of diphtheria contracted in his service in the hospital. On the evening before his death he was decorated with the Cross of the Legion of Honor.

Provident Dispensaries.—The Medical Institute of Liverpool refuses to give its countenance to provident dispensaries, because they are business institutions and liable to abuses.

The Dentaphone.—This is an instrument similar in principle to the Graydon audiphone, previously described in these columns. It is made in Cincinnati. According to Dr Turnbull, in the *Archives of Otology*, it is quite as efficient as the ordinary audiphone.

Typhoid Fever is not always the result of contagion, nor the product of filth, according to a number of authorities who have had experience in new countries. Mr. J. R. Exley writes to the *Lancet* that, after sixteen years' experience in New Zealand, Fiji, Western and Southern Australia, New South Wales, and Zululand, he comes to the following conclusions: 1. That a fever exactly like typhoid occurs in all those countries. 2. That in no case has he ever been able to trace the origin of this fever to contagion, although he had made special efforts to do so. 3. That in a few cases the disease seems to have arisen from the fouling of drinking-water by excremental matter. In the majority of cases the disease seems to have occurred among Europeans first inhabiting a virgin soil. This fever is sometimes called "hybrid fever" by army surgeons, not because it differs from typhoid in symptoms, but because they cannot account for it on the etiological theories of Budd, Watson, and Murchison. It is probably what we on this side of the Atlantic call typho-malarial fever.

The University of Michigan.—The medical department of this university announces a three years' course, of nine months each year, beginning October, 1880. Preliminary examination is also to be required.

San Francisco City and County Hospital.—This hospital is conducted in a way that strikes Easterners as somewhat novel. The building is a large one, and holds four hundred patients. The visiting physicians and surgeons are appointed exclusively from the faculties of the two medical schools of the city. They are paid $100 a month, and use the wards for clinical instruction to their pupils. The house-staff is not allowed to treat cases, it is said, but must in almost all cases wait for the visiting physician or surgeon. The hospital is said to be badly constructed as regards ventilation and drainage.—*Western Lancet.*

Tight Lacing the Fashion.—Dr. Dyce Duckworth, in *The Practitioner*, laments the fact that small waists are again to be in vogue, and that tight lacing is in consequence increasing. He finds the practice of wearing too small stays quite prevalent, even in the class of women that enters hospitals.

Many cases of dyspepsia in women yield quickly to the use of larger and better fitting stays. Chronic vomiting in young girls is often caused solely by tight lacing. Palpitation and dyspnœa are found to be due sometimes to the same cause. Proper exercise and free respiratory movements are also prevented. Stays of proper form, however, will serve an excellent purpose, affording warmth and support to the wearer. But the abuse of this article is always liable to become very great in obedience to the dictates of fashion.

The American Monthly Microscopical Journal is a new journal, edited and published by Romyn Hitchcock, in New York. It is intended to be a repository of short, original articles, which shall be popular and useful to microscopical students. The first number contains several such articles, and we should judge it to be an interesting one to persons especially devoted to the microscope.

Successful Removal of the Uterus.—In a case of ovariotomy, operated on by Dr. T. G. Thomas at

the Woman's Hospital a few weeks ago, the uterus was entirely removed with the tumor. The tumor was a cystic one, and firmly embedded in the uterus. A ligation was placed around the neck, and amputation performed just above this. No other special measures were adopted. The tumor was a very large one, weighing about forty pounds. This is, we believe, the first successful case of removal of the whole uterus that has occurred in New York.]

Japanese Medicine and Surgery.—The Ainos, a tribe in the north of Japan, manufacture one of the most popular of Japanese medicines. They first catch female bears, then take the heart, lungs, kidneys, and liver, and make a sort of sausage-meat by chopping them all up together, gall-bladder included, and drying them in cakes. This is purchased as medicine all over the empire, and is taken by simply cutting off slices and eating them. The taste is very bitter. It is used in diseases of the alimentary canal.

The aboriginal Japanese surgery is very rude. They use the moxa and the lancet. Syphilis was known and described three centuries ago. Mercury has been used in its treatment.

On the whole, the Japanese do not seem likely to furnish any new ideas to medical or surgical science. —*Chic. Med. Journal and Exam.*

Chloroform Narcosis and Nitrite of Amyl.—Dr. John Burke of this city writes: "On reading a recent number of the Medical Record, I saw an account of the death of a boy in the office of Dr. Vanderveer, at Somerville, N. J., from chloroform. Such a sudden death almost occurred to me last summer, which I will relate. If it will help my professional brethren, I will feel very much gratified. Besides, on that occasion 'I know how it was myself.' Last summer I had to perform a small operation on the vagina; the patient being very sensitive, I proposed giving chloroform. My assistant, who had been an interne at Bellevue, came to the house without the nitrite of amyl, which, since the discovery of its usefulness, I invariably have with me when chloroform is about to be inhaled. He was just going to give the anæsthetic, but something struck me that I had better send for it. I told the doctor my fears, and said that he must find some nit. amyl. The doctor, after half an hour's delay, returned with it. The doctor gave the chloroform on a pocket-handkerchief. Before this she had taken one and a half ounce of rye whiskey, which I invariably give before employing chloroform. I had introduced the speculum into the vagina, when the doctor nudged me. On looking at her she was apparently dead, pulse gone, heart ceased, face blanched, no breathing, mouth shut. My gracious! I thought that I would choke.

"In a moment I had perhaps twelve drops of the nitrate applied to the mouth on a towel, tongue dragged out by tenaculum. For a moment no response, then a slight purple streak through the cheeks, then a slight reddish tinge, then a feeble pulse, then the cheeks brilliantly suffused, then breathing returned. In a few moments more she had sense enough to put out her tongue when spoken to. I am certain that all this occurred in less than a minute. I breathed freer. I have given chloroform hundreds of times in the last thirty years. I saw the first patient, who died of it in this State of New York, cease to breathe on the operating-table at the old New York Hospital in the winter session, 1847–1848. He was a big, burly man—I think an United States Marine. Dr. Alfred C. Post was about to operate for piles, when the man ceased to breathe. They ran for the galvanic battery; there was evidently great commotion in the amphitheatre, but before anything could be done the man was dead. The post-mortem showed that the man was sound in every way. No cause was assigned for his death, unless spasm of the heart. The heart was healthy, but it was apparently small and contracted. My patient had not inhaled one drachm. The doctor was very careful. I was inclined heretofore to think that sufficient care was not employed in fatal cases, but I have gotten over that idea now. With utmost care, chloroform will sometimes cause sudden death, and we ought to be prepared for the emergency. Sulphuric ether is much safer. This woman was apparently dead from paralysis of the heart, and were it not for the nitrite of amyl would be surely dead. Think of it—pulse gone, heart stopped, breathing ceased, mouth closed—all this in a second. It is said that if too much nitrite be inhaled, bad consequences are apt to follow. Four drops is about the dose, but I think she must have had at least twelve drops on the towel."

The Annual Report of the Brooklyn Eye and Ear Hospital shows that during the year 1879 the total number of new patients treated was 4,123; of these 2,409 were eye patients; 1,067 ear patients; and the rest skin, throat, and nervous cases. The total number of visits during the year was 20,565. The number of surgical operations on the eye was 484; on the ear, 55; on the skin and throat, 51. The number of in-patients during the year was 69; cost of board, 25 cents per day.

Fatal General Peritonitis from Foreign Body in the Appendix Vermiformis.—Drs. T. F. Leech and E. W. Keegan send us a history, read before the Montgomery County (Ind.) Medical Society, Dec. 3d, of the above case.

The patient, a previously healthy girl, eight years old, was found, August 24th, suffering from constipation, great pain, and frequent vomiting; temperature, 102°; pulse, 115. The abdomen was very sensitive, and in the hypogastric region there was a distinct non-fluctuating tumor. On examination by rectum this tumor was felt, filling up nearly all the pelvis; it felt like cellulitis. There was no tumor in the right iliac fossa, so that perityphlitis was excluded. Drs. Keegan and Leech both reserved the diagnosis. The treatment consisted of mild purgatives, injections, anodynes, soothing local applications, and supporting measures. The patient died at the end of a week.

The autopsy revealed the following condition: deposited in the appendix, about one inch from the cæcum, were two concretions, each about the size and shape of an ordinary capsule. They each contained from four to ten grape-seeds, upon which were deposited dried fæces and secretions of the bowels. The hardened masses had gradually caused ulceration and perforation of the appendix, when some of the secretions probably escaped into the peritoneal sac. No lumps, however, were found outside of the appendix, nor was it dilated at all. That it was perforated was shown by the fact that a very little pressure caused the two concretions to escape through an opening in the side of the appendix. The peritonitis thus excited seemed to have first extended to the lower end of the epiploön, ileum, and the abdominal wall surrounding the iliac fossa, passing thence down into the brim of the pelvis, as all this part was gangrenous. The walls of the ileum were inflamed and paralyzed, the bowel being in a state of extreme distention; two loops of this extended down into the

pelvis, and formed the tumor felt in that locality. Throughout this portion of the body the adhesions were very great, the bowels being adherent to the walls of the abdomen and to each other. The peritonitis had become general before the death of the patient, as all the serous surfaces were covered with plastic lymph, and the abdominal cavity seemed to be full of a sero-purulent fluid.

University Medical College, N. Y., Commencement.—The annual commencement exercises of the Medical Department of the University of the City of New York took place at the Academy of Music on the evening of Tuesday, Feb. 17th. The Chancellor, Rev. Howard Crosby, D.D., read a portion of the Gospel of St. Matthew, after which the Degree of Doctor of Medicine was conferred on two hundred graduates.

Honorable mention was made of the following members of the class for proficiency and superior excellence as shown in their examinations: L. H. Hunt, F. Oakes, W. T. Van Dyck, D. Haig, S. M. Mousally, H. A. Pardee, G. M. Hammond, G. A. Thompson, J. K. Crook, W. H. Crocker. Honorable mention was also made of the theses presented by the following gentlemen: S. M. Mousally, on "The Diagnostic Value of Pain;" H. A. Pardee, on "Ethylic Alcohol;" M. B. Sullivan, on "Chronic Cystitis;" J. D. Kelly, on "Strangulated Inguinal Hernia;" G. F. Brooks, "Aneurisms;" E. A. Ayers, on "Massage."

The Mott prize medals for the best two anatomical preparations were awarded as follows: gold medal to T. H. Burch, silver medal to S. C. Blaisdell, and the Mott bronze medal for the best book of recorded cases of the surgical clinics to W. E. Dold. The Faculty having offered a prize of $100 to the candidate who should pass the best examination for his degree, and the examinations having shown that three gentlemen possessed equal merit, decided to award $100 to each of them, viz.: Leigh Harrison Hunt, B.S.; Frederick Oakes, A.B.; William Thomson Van Dyck.

Prizes for the best examination in the following branches were awarded as follows: pathology and practice of medicine, to W. H. Snow; materia medica and therapeutics, to David Haig; physiology, to Leigh H. Hunt; obstetrics, to L. R. Quackenbush; chemistry, to Leigh H. Hunt; surgery, to L. N. Hilleary; ophthalmology and otology, to S. Outwater.

A valedictory address was delivered by Robert Chalmers Davis, A.B., of the graduating class. The address to the graduates was made by the Hon. Charles C. Jones, of Georgia.

Grafulla's band officiated on the occasion. The Academy was crowded with a fashionable and appreciative audience, and the floral decorations were profuse and tasteful. The embellishments of the stage consisted of tastefully arranged palms, ferns, and spotted plants, together with a large shield of variegated flowers, bearing the legend, "Class of '80," and the symbolic *caduceus*.

Dr. John Neill, one of the authors of *Neill & Smith's Compendium*, died Feb. 11, of Bright's disease, at his home in Philadelphia, at the age of 70 years.

Boracic Acid not a New Remedy in Eye Diseases, and Optico-Ciliary Neurotomy not a New Operation.—Dr. E. Gruening, Surgeon to the New York Eye and Ear Infirmary, has written us a note stating that Dr. Theobald's claim for originality in the use of boracic acid in eye diseases is unfounded. In fact that article has been employed by ophthalmologists for many years, and Alfred Graefe, Weeker, Just, Becker and others, have written about it. The value of boracic acid as an antiseptic was brought out in a discussion at Heidelberg and Amsterdam during the past year.

He also states that the operation claimed by Dr. Chisholm is not original, in proof of which he refers to the labors of Graefe, Meyer, Landesberg, Boucheron, Schöler, Vignaux, Hirschberg, Mauthner, and a number of American ophthalmologists.

Hospital Saturday and Sunday Collection.—The total amount collected on the days set apart as hospital Saturday and Sunday was at first estimated to be about $75,000. It appears, however, that this was an over-calculation. The amount, as reported recently by the committee, is $25,000.

Nitrous Oxide Gas is used by Dr. Skene to produce anæsthesia in insane women undergoing uterine examination. The gas often has a beneficial after effect. Dr. S. finds that insanity diminishes functional uterine disorders, and often suppresses menstruation.—*Archives of Med.*

Donations to Hospitals.—By the will of the late ex-Secretary Borie, the hospitals of Philadelphia receive a large amount of money. Five thousand dollars apiece is left to three hospitals: Pennsylvania Hospital, Hospital of the Protestant Episcopal Church, and St. Joseph's Hospital. One thousand dollars apiece is given to the Children's Hospital, Will's Hospital for the Blind and Lame, and the German Hospital.

Books Received.

How to Work the Microscope. By Lionel S. Beale, F.R.S. Fifth Edition. London: Harrison, Pall Mall. Philadelphia: Lindsay & Blakiston. 1880.

Transactions of the N. H. Medical Society, 1879.

Answers to Correspondents.

W. F. A., *Salt Lake City, Utah.*—Are eczema and kindred diseases of the skin more common in the hot, moist, and equatorial regions near the ocean, or in the dry, cool, and mountainous regions of the interior of North America?

[There are not statistics nor facts enough to warrant the expression of any opinion.—Ed.]

W. F. A.—Is "*rigor mortis*" a common occurrence in sudden death from blows about the head, examination showing no lesion of cerebral substance? Ditto, in sudden death from apoplexy (cerebral hemorrhage)?

[It is stated by Woodman & Tidy (Forensic Medicine, etc., 1877), "that animals dying with an increase of their natural or normal temperature speedily become very strongly rigid. This happens in smallpox, acute rheumatism, tetanus, meningitis, abdominal diseases, pyæmia, and the like." "Increased heat, especially about 12° (Fahr.) above the normal temperature of an animal . . . . if long-continued, tends to bring about a permanent loss of irritability, or rigor mortis, from coagulation of the myosin." (See Niderkorn: De la rigidité, etc.; Onimus: Le Mouvement Médical, Feb., 1873; Nysten: Recherches de Phys. et de Chimie, 1811; Michael Foster: in Burdon-Sanderson's Handbook for the Physiological Laboratory; Dowler: Experimental Researches, etc., New York, 1846). A sudden, sharp blow, has been known to produce the same effect" (W. & T.).

To the writer it is suggested that an answer to the first question may be greatly facilitated by an experiment on any one of the lower animals.—Ed.]

Original Lectures.

AORTIC ANEURISM.

A Clinical Lecture delivered at the Pennsylvania Hospital, Philadelphia.

By J. M. DA COSTA, M.D.,

Professor of Clinical and Didactic Medicine in Jefferson Medical College.

(Special Report.)

H. D——, æt. 48, born in Scotland; a man with a good family history. The most careful examination has failed to elicit the evidence of any specific disease. The patient has been generally in good health himself except for an occasional cough. Two years before his admission to the surgical wards of the hospital, which was in the latter part of 1878, he fell from a step-ladder and received a severe contusion on his chest, but the effects of this injury soon passed away. His occupation, which has been that of a carpenter, has compelled him to work hard and to lift heavy weights. He has never experienced a sensation of anything giving way in his chest, and has never received any injury to his bones.

When first admitted to the surgical wards he complained of attacks of severe pain in his left shoulder, which sometimes extended into his chest. It was for this pain that he was admitted into the wards. Before he came into the hospital this pain was regarded as of rheumatic origin, and he was treated for rheumatism, but got no better. While trying to inform himself of the exact position of this pain, so as to be able to describe it the better, his attention was attracted to a throbbing sensation in his left chest, which was most marked when he was in the recumbent position. He also noticed a prominence. With this description of his condition, and without any physical examination, it was plain at once from what he was suffering: that the pain was evidently the result of the pressure of a large aneurismal sac.

When we came to measure the size of this aneurism we found that the disease had gained considerable headway. After being some time in the surgical ward the man was transferred, on February 13, 1879, to the medical wards, and at once placed upon large doses of the iodide of potassium, which was gradually increased in amount until ʒ i. (3.9) was taken three times a day; at the same time we kept him quiet. Under this regimen there was so much improvement in the pain, and decrease in pulsation, that the patient was able to leave the hospital and pay a visit to his family, but he soon came back again. Since then he has spent his time here lying quietly in bed, suffering occasionally from pain in the chest and left shoulder. There has at no time been any marked difficulty in swallowing, and on the whole, I think that the patient has been gradually improving, and becoming more and more comfortable. Our treatment has consisted mainly in the use of large doses of the iodide of potassium, which have been steadily kept up for months with an occasional intermission, for we have at times lessened the dose, but very rarely stopped it. The attempt was made upon several occasions to increase the amount taken beyond ʒ i. (3.9), thrice daily, but it gave rise to so much disturbance that we had to reduce it again. At present he is only taking gr. xx. (1.3). On the other hand, we have been giving gtt. v. (.40) of Fowler's solution three times a day, in combination with the iodide of potassium.

For a time, also, we employed the tincture of the root of aconite several times daily.

Since January 6th of the present year, we have made a change in our treatment, and are now employing, in addition to the iodide, ergot hypodermically every other day. At the same time we often find it necessary to give a hypodermic of morphia on account of the chest-pains, which occasionally give him much trouble.

Let us examine the physical phenomena, and let us see if we can modify them to any extent. You see that the patient is a well-nourished, strong looking man, whose chest is palpably deformed. The sternum has been displaced — pressed upward. There is an obvious deformity of the upper part of the chest. When we look farther, however, above the obvious deformity of the chest and the marked prominence of the upper part of the sternum, we find a local bulging extending from the clavicle to a spot below the third rib, which is the seat of a distinct pulsation. Below this pulsating body still, and striking nearer the nipple, is another seat of pulsation.

What attracts us at once in examining these two points of pulsation is that the second or lower pulsation is the more prominent of the two.

These are the physical signs of the case: a marked prominence under the left clavicle which pulsates, and below this point, nearer the apex, another pulsating spot not so prominent as the upper one, but pulsating with much more force. These facts have been confirmed by careful palpation practised in the wards.

"Does it hurt you over the prominence just under the clavicle?"

"No."

The pulsations, you see, raise my fingers perceptibly as I lay them over the spot.

When I percuss the chest, beginning to the right of the sternum at the upper part of the chest, the note is decidedly dull; it is so also as I cross the sternum, and until I reach and pass the pulsating prominence underneath the left clavicle, and come to a point on a line with the middle of the clavicle in the second interspace, there I get pulmonary resonance. I also find that the dulness extends below the nipple, where it becomes one with the cardiac dulness.

Upon auscultation over the upper point of pulsation, I can distinguish a systolic murmur of some length, but with no harshness and unconnected with thrill. A second sound (not a murmur) follows this systolic murmur.

Passing below to the second point of pulsation, I distinguish a faint systolic murmur over the cardiac region proper. This murmur becomes fainter and fainter as we go up toward the apex.

The second sound, heard over the cardiac region, is faint over the left ventricle, distinct at mid-sternum.

These are the signs upon auscultation as further phenomena connected with the circulation, let us pay some attention to the state of the vessels; taking first the left carotid.

"Hold your breath for a second."

An extremely faint murmur is perceptible over this artery. Over the right carotid the same extremely faint murmur is perceptible, a second sound can also be heard.

Upon comparing the two carotids, I should say that the murmur, although faint in both, is fainter over the left than over the right.

Now we will turn our attention to the pulses. How are they? The pulses on both sides are weak. I cannot say that there is any great and persistent difference between the pulses. The pupils are equal in size, and both of them are contracted. The right pupil responds a little less readily to light than the left. Just as I make this statement, the resident whispers in my ear, "Morphia last night." You may therefore take my statement as a correct observation with a somewhat doubtful explanation.

I will endeavor to see if I can detect any symptoms of pressure.

"Have you any pain in your chest now?"

"No, not near as much as I used to have."

"Have you any cough?"

"None at present."

He had a slight cough, and a little dyspnœa when he came into the wards.

"Have you any difficulty in swallowing?"

"No."

"Has your voice changed?"

"Not at all."

"Can you speak well?"

"Just as well as ever."

As bearing on these symptoms of pressure, let us see if there is any pressure upon the lungs.

"Take a full, long breath."

The respiratory murmur is distinct over both the right and left sides of the chest, anteriorly and posteriorly. It is even a little harsh over the right lung.

I will now examine the patient's back.

"Take another full breath."

The same state of things seems to hold posteriorly, except that the inspiratory murmur, which preserves a certain amount of harshness over the right lung, both anteriorly and posteriorly, is rather feeble over the back of the left lung.

If we add a few other symptoms, we shall have given a complete clinical record of the case. Let me say, however, just here, that while examining the back of the chest I could not distinguish any murmur over the course of the aorta, running my ear down the back, but that quite high up behind the site of the aneurism, I could distinguish a very faint systolic murmur.

"Put out your tongue."

The tongue, is, as you see, perfectly clean.

"Are you troubled with flatulence?"

"Occasionally, but not often."

There are no abdominal symptoms to speak of. The digestion is fair, and the urine normal. The finger-nails are slightly curved. He has never had any night-sweats. He is neither losing nor gaining flesh.

Let us put all these facts together, and see where we shall land in our endeavor to group the clinical phenomena.

The diagnosis of aneurism is very easily made. What symptoms point toward the existence of aneurism? First, a pulsation of marked character, different from that of the heart—the double centre of pulsation, if you like. This pulsation, too, is associated with a marked prominence. Pulsation at a prominent centre, different from the heart, is almost always significant of aneurism. This is the first symptom. Secondly, we have the systolic murmur, which occurs as the blood flows into the sac. This, also, is a pathognomonic symptom of aneurism, although this systolic murmur is absent in some cases.

This murmur is not associated with thrill. Is thrill a necessary symptom of thoracic aneurism? By no means, it is more usually absent than present. The absence of thrill, therefore, does not invalidate our conclusion that the case is without doubt one of aneurism.

While still speaking of these phenomena, let me call your attention to the fact that the position of the heart is displaced; its apex beat is higher up than usual; the organ is somewhat twisted about by intrusion of the aneurismal sac. I should say, too, that the left ventricle was hypertrophied, as there is a very marked increase in its power, force, and size.

The murmur which can be heard over the patient's heart is either a murmur transmitted from the aneurism, or else it is due to some coexistent valvular lesion.

Which is it? Since it is so faint, I should say that it was a murmur transmitted from the aneurism.

Still, looking at the symptoms of the case, I am struck with the feebleness of the pulse. I do not trust to my fingers alone in this case, but can show you the sphygmographic tracings which have been obtained. These wave-lines indicate great want of power on the part of the heart. This feebleness is remarkable, as there is such marked hypertrophy of the heart.

The pupils are about equally contracted. That this contraction is not wholly, if at all, the effect of the morphia which the patient took last night, may be gathered from the fact that there was the same contraction of the pupils before he took the morphia.

Do I draw any conclusion from the feebleness of both pulses and contraction of both pupils? Yes. The rule is this: when the aneurism occupies the right side of the arch, we have contraction of the right pupil and feebleness of the right radial pulse; the contraction of the right pupil being due to the fact that the aneurism presses on the sympathetic ganglia on the right side of the neck, while the pressure exerted upon the subclavian artery causes feebleness of the right pulse. As both pulses are equally feeble here, and both pupils equally contracted, the only deduction to be drawn is that both sides of the arch of the aorta are equally implicated. We have here, then, a very extensive aneurism, involving the right, transverse, and left portions of the arch of the aorta.

In looking over the man's history, we have what might be called a negative record with regard to pressure symptoms. There has been no difficulty in breathing or in swallowing. There has been no alteration of voice. As a general thing, pressure phenomena are the rule in thoracic aneurism.

The only sign of pressure here is upon the bronchial tubes. The respiratory murmur is harsh upon one side and feeble upon the other. Yet here this distinction is not so clearly made out as is often possible.

"Let the patient be carried out now."

I sent the man out because I wish to say some things to you which it would not be desirable for him to hear.

From the absence of signs of pressure, and from the marked character of the prominence, can we draw any other conclusions? Do these things throw any additional light upon the site and prognosis of the aneurism? Yes; they show that the aneurism tends to grow externally. If it were growing internally, we should have much greater pressure phenomena, and we should find the pressure phenomena much more marked now than they were early

in the case, whereas the very opposite of this is true. The aneurism is evidently growing externally, and what we have most to dread is that it will give way externally.

If this external rupture does take place, it will be by the absorption of the ribs and sternum. However, as yet it can only be a matter of probability. The sac is in contact with so many internal organs that it might rupture internally, but I think the chances are all the other way.

I have already called attention to the treatment, and told you that the patient had been very greatly improved by his year's rest and by the steady employment of the iodide of potassium. This treatment represents the best treatment in aneurism. It is a particularly useful treatment if, at the same time, we moderate the patient's diet, and so gradually bring the blood into the best condition for clotting. The iodide of potassium does good (1) by favoring coagulation and (2) by stopping the inflammatory processes in the sac.

What results have followed this treatment here? The very best. There is a very considerable clot within the aneurismal sac. If it were not so, we should have much more marked pulsation, a powerful beat, which we have not got. This absence of a strong pulsation is a proof that coagulation has gradually been taking place in the sac. The treatment is therefore accomplishing all that we could desire.

Other plans of treatment have been recommended and tried—such as galvanism, acupuncture, the steady application of ice, and the employment of remedies calculated to lessen blood-pressure, such as aconite and veratrum viride in decided doses. All these do good under certain circumstances, and I will refer to their use next Saturday, when I shall bring another case of much the same nature as this one before you.

In conclusion, I wish to state that we have relieved the short attacks of pain always met with in this disease by hypodermic injections of morphia. Chloral is a very excellent anodyne when the heart is not weak. It is rather indicated than counter-indicated by the lessening of blood-pressure present in this case.

Original Communications.

THREE CASES OF ANOMALOUS CARDIAC DISEASE.

Reported to the Cincinnati Medical Society.

By J. C. MACKENZIE, M.D.,

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Reuben T——, colored, native of Georgia; æt. 44; single; cook; was admitted to Cincinnati Hospital May 20, 1878. Mother died of dropsy; otherwise, so far as he knows, his family history is good.

He is a moderate drinker. Had some form of venereal ulcer on penis ten years ago, but never any secondary symptoms. Had rheumatism six years ago, which lasted ten months. Has had two or three attacks since, the last one three months ago. He states that for the last six years he has been subject to attacks of dyspnœa, and unpleasant sensations in left side, and, latterly, to palpitations, cough, and frothy expectoration. Some time since he spat up some blood. Has not lost flesh to any extent.

Present condition.—A man below medium height, of fair development, and well-nourished. Lips somewhat cyanosed; tongue clean; appetite fair; bowels regular.

Physical examination.—Area of cardiac impulse increased. Murmurs heard with both sounds, most distinct at base. The systolic murmur is very loud and musical, and can be heard over the whole front of the chest and in the course of the carotid artery and descending aorta. He was ordered ten drops of the tinc. of digitalis three times daily.

May 25th.—Complains of shortness of breath and palpitation of the heart, and rests badly.

June 1st.—The musical character of the sound no longer exists. The murmurs continue otherwise as before. 6th. The dyspnœa and palpitations continuing unabated, he was ordered ten drops each of tinc. of digitalis, and tinc. of valerian, and fifteen drops of tinc. of chlor. of iron, three times daily. 10th. Musical sounds have returned, otherwise no change. 20th. Condition is worse; respirations very frequent; has severe paroxysms of cough and dyspnœa. Is obliged to lie constantly on his back, and even in this position he rests badly at night. Has no œdema anywhere. To take, in addition to other medicine, a teaspoonful of syrup of morphia every four hours. 27th. The paroxysms of dyspnœa and coughing continue about the same; expectorates frothy mucus, streaked with blood; did not sleep last night, and had to sit up in consequence of the difficulty of breathing; it is less urgent this morning; musical heart-sounds continue; appetite fair; bowels moved twice; has had some œdema of the legs for a few days past. Is taking bimeconate of morphia and digitalis.

July 1st.—Has been reclining in chair all day; and feels pretty easy; cardiac dulness extends from the upper level of the third rib to the upper level of the sixth, and from the left parasternal line to the left mammary line; dyspnœa about the same. Morphia continued.

From this time until August, the condition remained much the same, except that the dropsy of the legs increased very much. It is rather remarkable that during his stay in the hospital his pulse was rarely above the normal in frequency. On the 20th July $\frac{1}{64}$ grain of atropia was given at night, but it did not relieve his breathing to any extent.

On August 2d, the swelling of his legs being very great, they were punctured in several places and a considerable quantity of serum flowed out during the next few days.

He steadily declined in strength, the orthopnœa being constant. The musical murmurs were replaced for two or three weeks before his death by the ordinary blowing sounds of valvular disease.

He died on the 12th August.

The urine was repeatedly examined, but only on one occasion was any albumen found, and then but a trace.

Autopsy made by Dr. N. P. Dandridge, pathologist to the hospital, eighteen hours after death.

Body fairly nourished. Rigor mortis slight; lower extremities œdematous. All the serous cavities contained serous fluid. Lungs œdematous, otherwise healthy. Heart much enlarged. Cavities dilated and contained large quantities of dark, soft, coagulated blood. Walls thickened; no valvular lesions. Kidneys quite firm; normal. Capsule everywhere readily removed. Liver on section mottled, and of a nut-

meg appearance. In some parts of the section an appearance as though blood had been effused into the tissue. Spleen small and firm.

Private D——, aged 34, German; single; admitted to the Cincinnati Hospital August 9, 1878. No hereditary disease, as far as he knows, in the family. Father died of typhoid fever. Habits temperate. Denies ever having had syphilis. States that he has had asthma for a long time, and that six months ago he began to have shortness of breath upon violent exertion. Has had palpitation of the heart occasionally. His present illness began one month ago with swelling of the legs. At the same time his urine became less in amount. The swelling has increased and the difficulty of breathing also.

Condition on admission.—A man of average size and fair development; apparently well-nourished. Legs much swollen and oedematous; tongue clean; appetite good; bowels regular. Wheezing sounds throughout the lungs; musical murmur with first sound of the heart, most distinct at the apex; area of cardiac impulse much increased. Ordered fifteen grains potass. bromide three times daily.

August 12th. Had great dyspnœa this morning; heart's action very tumultuous; skin cyanosed; pulse, 130. Whiskey was given freely, and he somewhat improved for a time; but at 12 o'clock he was greatly cyanosed, the dyspnœa was very urgent, and the pulse small and feeble.

He lingered, constantly growing weaker, until five o'clock the next morning, when he died.

His urine was examined, but no albumen found.

Post-mortem examination made ten hours after death by Dr. N. P. Dandridge, pathologist to the hospital. Marked œdema of the lower extremities. Lungs adherent throughout, and markedly œdematous. Heart very much enlarged, and walls thickened, especially those of the right ventricle. All the cavities dilated, containing soft coagulated blood. Valves normal. Pericardium contained serous fluid. Liver enlarged. On section, a large quantity of fluid blood flowed from it; it presented a nutmeg appearance. Kidneys firm, and somewhat enlarged. Capsule readily removed. Surface beneath smooth.

For the following history, I am indebted to Prof. William Clendenin, who was in charge of the case, and with whom I saw the patient in consultation:

John H——, Welchman, aged 58, carpenter, called at my office, August 13, 1878. He was a large muscular man, and presented the appearance of one suffering with ague. Skin sallow and dry; tongue somewhat furred; appetite poor and capricious; suffered with slight nausea after eating; bowels slightly constipated; complained of slight chills or rigors, and thought he had ague; pulse about normal.

I prescribed a mild mercurial purge, to be followed for four days by dilute nitro-muriatic acid.

Saw him a second time, August 19th. Tongue cleaner; bowels had been well evacuated; appetite better; he complained, however, of some distress at stomach, attended with some nausea after eating. I ordered him infus. quassiæ, ʒvi.; acid. muriat. dil., ℥ iss.; quiniæ sulph. ℈i., a teaspoonful after every meal.

The patient seemed to improve while taking this, and went to the country for three weeks. He came back feeling worse, and sent for me September 13th. I found him in bed, looking somewhat emaciated. Skin sallow; appetite very poor; some thirst; bowels costive; urine slightly diminished in quantity; specific gravity, 1020; no albumen; no sugar; some traces of bile; complains of having slight chills and a sensation at night of want of air, so that he required to open the windows. I ordered a more active calomel purgative, followed by gr. iij. quinæ sulph. every five hours, and gr. x. pepsinæ, and gtt. x. dilute muriatic acid after every meal. He was also directed to have frictions with salt water, and a diet of beef-tea, milk, eggs, etc.

September 17th.—Patient no better. Symptoms about the same as when last noted. Temperature at five o'clock this morning, 99½°. Still experiences the sensation of want of air at night. Has a loathing for food.

September 29th.—Patient frequently vomited small quantities of dark-colored mucus with food. Pulse, 86; heart's action quite regular; sounds normal; patient emaciating.

October 4th. Vomiting more frequent; no appetite; temperature, 99½°; bowels constipated; urine scanty.

October 14th.—Vomiting persists, particularly after taking anything into stomach; fluid ejected, dark, grumous, at times streaked with blood; refuses to take any nourishment, except at long intervals, and then only a little sweet milk; temperature this evening, 100½°.

From this time until his death, which occurred on the 29th, the patient gradually declined, no new features worthy of note having presented themselves.

A post-mortem examination was made the next day. The body was much emaciated, and the skin presented a slight icteroide hue; the heart was somewhat enlarged; the aortic valves were ulcerated and covered with fibrinous deposits; the mitral valve was similarly, though less extensively, affected; lungs œdematous; the liver was enlarged, firm in consistence, and a little rough upon the surface, it did not contain an unusual amount of blood; in the gall-bladder was found a gall-stone about the size of a hazel-nut; the spleen was much enlarged and rather soft; kidneys normal; stomach and intestines normal in all respects.

This case presents features in striking contrast with those of the other two cases reported. Whereas in them all the symptoms, both rational and physical, pointed to valvular disease of the heart, in this the only symptom having any bearing in that direction was the sensation of want of air which he sometimes experienced at night. I saw the patient, in consultation with Dr. Clendenin, on two occasions, on Oct. 1st and 8th, and on both occasions, the case being an exceedingly obscure one, we made a most careful physical examination of the heart and lungs, without, however, being able to detect anything abnormal; the heart was examined with particular care, in consequence of his complaining of the want of air, but the sounds were perfectly healthy. All the symptoms, with the exception of the one mentioned, indicated rather disease in the abdomen than in the thorax, and our opinion, although given with some reservation, was that there was probably carcinoma of the liver; such opinion being based upon the cachectic appearance of the patient, the slight icterus, some enlargement of the liver and induration of the organ, which we detected on palpation, the progressive emaciation and dyspeptic symptoms. The autopsy revealed our mistake, but it did not any the more enlighten us as to the cause of the digestive difficulties; for the increase of fibrous tissue in the liver, and the presence of a small gall-stone in the gall-bladder, were certainly not sufficient to account for them, and I do not think that the disease of the heart could have produced such an amount of con-

gestion in the digestive organs as to interfere with their functions without, at the same time, giving rise to such a hyperæmic condition of the lungs as would have resulted in serious disturbance of respiration, cough, and dyspnœa, which did not exist. How such extensive valvular lesions could be present in a heart without being attended with murmurs and the usual rational signs of cardiac disease seems to me inexplicable. I have never seen such a case before, nor have I ever met with the account of one in my reading. Were it not that our attention had been especially directed to the organ in consequence of the complaint that he made of want of air at night, it might be supposed that we carelessly passed over a murmur, which nevertheless was present, but, with the amount of care which we exercised, I do not think such an explanation admissible.

The other cases are equally inexplicable, but they presented the very opposite conditions, all the physical signs and rational symptoms of valvular disease were present, but nothing was found, post-mortem, to account for them. The circulatory disturbances might possibly be explained by the dilatation of the mitral and tricuspid orifices, and consequent insufficiency of the auriculo-ventricular valves; but those who saw the specimens expressed the opinion that such an explanation was hardly justified by the amount of dilatation present, and I do not think that it would at all satisfactorily account for the abnormal sounds, which, in the first case especially, were remarkably distinct. This case, before I took charge of the ward, had been under the care of Prof. John A. Murphy, and had been repeatedly examined by him as well as by Dr. Dandridge and others; indeed, the case was regarded, in consequence of the loudness of the musical note and the large area over which it could be heard, as a sort of show case, and was exhibited to, and examined by, an unusually large number of physicians.

I have reported these cases as illustrating, in a most interesting manner, the occasional uncertainty of physical signs. I do not wish to belittle the importance of physical diagnosis, but I think it is well that physicians should know that cases sometimes occur in which even the most careful examination and the existence of what seems to be the most positive signs will not prevent an erroneous conclusion.

ELONGATING HYPERTROPHY OF THE FEMUR AND TIBIA OF OPPOSITE SIDES (THE OSTEITIS DEFORMANS OF PAGET).

By W. H. DALY, M.D.,

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VOIGHT L——, aged four and a half years, a bright and interesting boy, the only surviving child of his parents out of five births, and the only child of this number of which I had the professional care in delivery.

The mother has been subject to inflammatory rheumatism for many years, but is otherwise healthy; she is small in stature, but of symmetrical build. The father is a large man of fine physique and usually healthy.

At the time of accouchement with this child the mother was suffering with a severe attack of acute articular rheumatism, chiefly in the hands and fingers. The labor was somewhat protracted, and the child at birth was extremely thin and quite delicate. In this child ophthalmia neonatorum of a severe type supervened early after delivery. Almost simultaneously, arthritis appeared in the child's right knee, attended with pain, swelling, and tenderness. This lasted about four months, the child having in the meantime recovered from the ophthalmia neonatorum and begun to thrive.

In the winter of 1879 the mother called my attention to the child having a painless, limping gait, but attributing this to some stiffness about the knee of the right leg, a sequel of the arthritis. Little attention was paid to it until Feb. 28, 1879, when I was requested to visit him for some slight ailment. Upon entering the room where he was, standing stripped upon a chair, in the process of being washed, I then observed that his right foot was advanced somewhat in front of its fellow, while the knee was slightly flexed, giving the right leg the appearance of being longer than the left. This led me to measure the limbs.

The right knee had, ever since the attack of arthritis in early infancy, been somewhat larger in circumference than the left one. The measurements were as follows:

February 28, 1879.

Right Leg.

	Inches.
From anterior superior spinous process to internal malleolus	$17\frac{6}{16}$
From anterior superior spinous process to upper edge of patella	$9\frac{4}{16}$
From upper edge of patella to internal malleolus	$8\frac{2}{16}$

Left Leg.

From anterior superior spinous process to internal malleolus	$16\frac{15}{16}$
From anterior superior spinous process to upper edge of patella	$9\frac{4}{16}$
From upper edge of patella to internal malleolus	$7\frac{11}{16}$

NOTE.—It will be observed that there is now apparently a difference of $\frac{1}{16}$ of an inch in the length of the limbs. Measuring from the anterior superior spine of the ilium to the internal malleolus, the right leg being $\frac{1}{16}$ of an inch longer than its fellow of the left side, there is a similarity in the length of the femora of both sides, while the tibiæ show the entire difference in length.

The child's general health is good. He is very active, both mentally and physically. A thick-soled shoe is ordered for the non-lengthened left leg to preserve the perpendicular axis of the body, and some cod-liver oil with phosphates ordered on general principles. Instructions are given to the mother to insist on the child bearing the weight of the body upon the lengthened limb as far as practicable, which can be done without the slightest pain, but is hardly ever accomplished, as the child, when standing, finds it more convenient to rest upon the short limb, and has a habit of resting the foot of the longer limb upon the instep of the foot of the short one by flexing the knee of the right leg.

April 10, 1879, about six weeks after.—The child is thriving and in most excellent general condition, and the following measurements are made and recorded:

April 10, 1879.

Right Leg.

	Inches.
From anterior superior spinous process of ilium to internal malleolus	$18\frac{3}{16}$
From anterior superior spinous process to upper edge of patella	$9\frac{9}{16}$
From upper edge of patella to internal malleolus	$8\frac{10}{16}$

Left Leg.

	Inches.
From anterior superior spinous process to internal malleolus	17 $\frac{1}{8}$
From anterior superior spinous process to upper border of patella	9 $\frac{3}{4}$
From upper edge of patella to internal malleolus	8 $\frac{1}{4}$

NOTE.—Since last measurement the child has made the remarkable growth in length of right leg in six weeks from 17 $\frac{3}{8}$ to 18 $\frac{3}{8}$ inches, 1 $\frac{1}{8}$, or about $\frac{3}{4}$ of an inch, and in the sound, or short leg, there has been a growth of $\frac{5}{8}$ or $\frac{1}{2}$ an inch

There is now a difference in the length of the femora of $\frac{1}{8}$ of an inch, while at the former measurement no difference was discovered, and it is to be presumed none existed in the two femora, and there is now a difference of $\frac{1}{4}$ of an inch in the two tibiæ, which showed the same difference in length at last measurement. Consequently, even allowing for unavoidable inaccuracies in measurement where the anatomical superficies are so movable and difficult to collocate, we can but conclude that the hypertrophic growth has lately been going on in the lower end of the right femur, and for the time-being it has been arrested in the head of the tibia of right side, and also in femur of left side there has been apparently no growth.

The case being practically of an entirely new character to me, I was naturally desirous of obtaining all the information I could upon it, and in seeking this end I happily learned that my friend, Dr. J. A. Lippincott of this city, had, while resident physician to the Pennsylvania Hospital, at Philadelphia, made and published some interesting records of a case in the *American Journal of Medical Sciences* for January, 1876, of a similar character, entitled "A Remarkable Case of Traumatic Hypertrophy (including Elongation) of the Digital Phalanges."

Dr. Lippincott courteously accepted my invitation to visit this patient with me upon July 31, 1879, when we made and recorded the following measurements, the child's health being as usual excellent, and bearing every evidence of physical as well as mental thrift and activity, and his body being of most beautiful proportions:

The measurements made by Dr. L. and myself were as follows:

July 31, 1879.

Right Leg.

	Inches.
From anterior superior spinous process of ilium to internal malleolus	18 $\frac{1}{2}$
From anterior superior spinous process of ilium to upper edge of patella	9 $\frac{1}{2}$
From upper edge of patella to internal malleolus	8 $\frac{5}{8}$

Left Leg.

From anterior superior spinous process of ilium to internal malleolus	17 $\frac{1}{2}$
From anterior superior spinous process of ilium to upper border of patella	9 $\frac{3}{8}$
From upper border of patella to internal malleolus	8 $\frac{1}{4}$

NOTE.—These measurements are made fifteen weeks after the last, and the lad has shown a growth of 1 $\frac{1}{2}$ or nearly $\frac{3}{4}$ of an inch in the limb which is the subject of the hypertrophic elongation. In the opposite or short leg there is a growth of $\frac{1}{8}$ or just $\frac{1}{4}$ an inch. In the right femur there is an increase of $\frac{1}{8}$ of an inch, and in the right tibia an increase of $\frac{3}{8}$ of an inch.

It will be observed that, with this strikingly rapid growth of the lower extremities, the left femur has not shown any elongating growth at all, but in the entire twenty-one weeks this part of the leg remains a measurel length of 9 $\frac{1}{4}$ inches, while the leg shows a growth of one inch, and entirely in the tibia.

The right femur shows a growth as opposite to this, in the same time, of 1 $\frac{1}{8}$, or nearly $\frac{3}{4}$ of an inch, while the right tibia exhibits a growth in the corresponding period of 1 $\frac{1}{2}$, or a little more than $\frac{3}{4}$ of an inch. So we observe while the right femur has grown, by its hypertrophic elongating process, very rapidly, its fellow has had its growth in almost complete arrest; and while the right tibia has shown a growth of 1 $\frac{1}{2}$ of an inch, the left has outstripped this growth by $\frac{3}{8}$ of an inch in the same period.

At the first measurement, upon February 28, 1879, there was a relatively greater length in the right leg of $\frac{1}{8}$ of an inch, or a little over a quarter inch longer than its fellow. At the second measurement, April 10, 1879, six weeks later, there was a relative greater length in right leg of 1 $\frac{1}{8}$ or $\frac{3}{4}$ of an inch longer than its fellow. At the third measurement, July 31, 1879, fifteen weeks later, or twenty-one weeks after first measurements were recorded, there was a relative greater length in the right leg of 1 $\frac{3}{4}$ inch, or more than $\frac{3}{4}$ inch longer than the left leg.

December 28, 1879.—Nineteen and a half weeks after the last measurement, and about ten months after the first measurement, I make and record the following:

Right Leg.

	Inches.
From anterior superior spinous process of ilium to internal malleolus	19
From anterior superior spinous process to top of patella	9 $\frac{1}{8}$
From top of patella to internal malleolus	9 $\frac{7}{8}$

Left Leg.

From anterior superior spinous process to internal malleolus	18 $\frac{1}{8}$
From anterior superior spinous process to upper edge of patella	9 $\frac{1}{8}$
From upper edge of patella to internal malleolus	9

NOTE.—We observe that the difference in the length of the legs now is only half an inch. Can this in any measure be attributed to the elevation of the short leg by means of a cork sole on the shoe of the left foot, thus breaking up the habit of the lad standing upon the left foot, and in fact compelling him to stand upon the longer leg.

We believe a measure of improvement has been brought about by this enforced superincumbent weight upon the right leg, and a gain of more than $\frac{1}{4}$ inch obtained.

We see there is a now a greater length by $\frac{1}{8}$ of an inch each in the femur and tibia of the right side over their fellows of the left.

There has, since last measurement, been a growth of the right leg of but $\frac{1}{8}$ of an inch, while there has been a growth of the left leg in the same time of $\frac{1}{16}$ of an inch, convincing us that the gain has been made by reason of the arrest in the vicious growth of the bone, and a corresponding increase of the normal development of the osseous structures. The knee of the right side is $\frac{1}{4}$ inch larger in circumference than its fellow.

The child is in vigorous health, as usual, and is growing broader; suffers no pain whatever in the limbs, nor has he complained of any since the subsidence of the acute arthritis in early infancy.

Remarks.—Sir James Paget, Bart., read a paper before the Royal Medical and Chirurgical Society,

November 14, 1876, describing four cases of this disease. One of these cases was under the care of Mr. Thomas Bryant, of Guy's Hospital, London, and is again reported in the volume of the Reports of the Hospital for the year 1877. The case is a remarkable one, nearly all the long bones of the body being involved to a greater or less extent, as well as the cranial bones.

Paget regarded the action producing this hypertrophy as essentially an inflammatory one. Taking the definition of this action as being simply "the production of imperfect structures," this might satisfy; but the fact that there is a vice in the appropriating power of certain tissues or localities in the subjects of this malady, can scarcely be denied, wherein inflammation has little to do.

In many of these cases there is a vitiated demand for pabulum. Or, if you please, the natural demand for material from the blood has become (in certain localities), of the bony structure, irregular, and consequently inharmonious growth results therefrom.

That inflammatory action exists, cannot be doubted in *some cases;* but in the LEFT tibia of the boy whose case I report, there is not, nor never has been, the slightest evidence of inflammatory action, of however slight degree. This action was confined entirely to the RIGHT knee in early infancy.

Dr. Lippincott observed his case in Feb., 1875, and reported it in Jan., 1876, while Paget reported his cases on Nov. 14, 1876, Dr. Lippincott having the honor of the priority of observation of nearly two years, and a priority of report of eleven months.

Mr. Bryant's case, as well as that of Dr. Lippincott, were supposed to be of traumatic origin; that of Dr. Lippincott beginning in the third finger of right hand, and was caused by a bruise from a stone falling upon the finger when the boy was two years old. A subsequent wrench of the finger was supposed to have increased the liability.

Bryant's case began after the patient was thirty-five years old, and dated from a fall while carrying a load upon the shoulders, the weight of the load coming down, striking the hip and injuring the pelvis of the man.

In Bryant's report of his case, he states the position of his patient was characteristic, with bowed back, falling head, drooping arms, and bent legs, giving the patient a simian or monkey-like aspect. This position was certainly characteristic in this case, but the disease is yet so rare, and the reports so few, that as yet it seems difficult to say what are the general characteristics other than hypertrophic elongation of the bones.

Bryant treated his case by starving the organic elements of the bone with the hope of encouraging the deposition of organic matter, but with little success, as the case was a progressive one.

Quoting Mr. Deeping's subsequent report from Southend, Essex, England, who had sent the case to Mr. Bryant, "the treatment was of no avail."

From the microscopic report made by Dr. Morris Longstreth, pathologist to the Pennsylvania Hospital, I quote the following concerning Dr. Lippincott's case. The doctor says: "After careful microscopic examination of sections of the bone, every portion appeared normal, both as to size and arrangement of its minute anatomy."

Cases of unsymmetrical growth of bones will doubtless be more observed in the future, that will be related more closely to excesses or hypertrophic development and be more or less dependent upon the condition of the blood or constitution, known as the ossific dyscrasia or diathesis.

This condition may be set about by inflammations, ulcerations, or attempt at repair after necrosis.

Yet, when all inflammatory action subsides, the co-ordinative appropriation of growth material may have been so deranged by the former inflammatory action as to start certain parts into hypertrophic growth, while other parts may cease to build up and their growth remain in arrest, though nourishment may go on as in bone of the completed adult growth.

The paper of Dr. Lippincott upon this subject is a most valuable contribution to medical science.

The case of Mr. Bryant, which began after the age of thirty-five, may not alter the rule, but it certainly forms a most remarkable exception to the belief of Dr. Lippincott, expressed in his paper, as well as the many valuable concurring authorities he cited, that all authors agree that it (viz., the disease in question) always takes place before the natural growth of the osseous tissue ceases.

Experience had really, as the doctor says, shown, before the publication of Bryant's case, "that the bones exhibit no tendency to undergo elongating hypertrophy after the developmental period is past. A further publication of cases may cause much more alteration in these views.

With your permission, I will quote from Paget to show that he had observed cases similar to the one I report, as early as 1870.

He says, page 62, third edition, "Surgical Pathology":

"There is a condition of bone so similar to hypertrophy in many respects, and so little different from it in any, that I may well speak of it here, yet not without acknowledging that nearly all I know about it is derived from Mr. Stanley.

"When any one of the long bones of a person who has not yet attained full stature is the seat of disease attended with an unnatural flow of blood in or near it, it may become longer than the other, which is the more healthy bone. . . . . And for all his life afterward he may be lame, and the character of his lameness will show that the limb which was diseased is too long."

I may, without impropriety, claim that I in this case observed what is quite worthy of notice, that while there was in the femur of the right, and tibia of the left side, an evidently rapid hypertrophic elongation, there was, at the same time, a corresponding arrest of growth in the left femur, as though the growth material had been diverted in a great measure from its appropriate destination or locality.

So far as the remedy for this condition is known, it is based upon the most rational therapeutic and mechanical laws.

The perpendicular axis of the body can be preserved to prevent in the growing youth spinal curvatures, or talipes; this can easily be done by building up the short side by means of a thick-soled shoe.

Nay, more than this has been done in my case, as —and to this I attribute the improvement—I have thrown the greater part of the boy's body-weight upon the long leg, and thereby gained a quarter of an inch by this means. As to medicines, those containing the elements of bone seem to me to be indicated, and it is needless to add that all health-giving measures are here demanded to restore nature's equilibrium in the anatomical formation of perfectly symmetrical structures.

GUMMATA OF THE PENIS RESEMBLING PHAGEDENIC CHANCRE.

By WALTER B. JOHNSON, M.D.,

HOUSE-SURGEON AT CHARITY HOSPITAL, N. Y.

C. K——, male, æt 32; single; United States; clerk; was admitted to Charity Hospital, N. Y., October 10th. He is of light complexion and somewhat anæmic; has generally enjoyed good health. He gives an obscure history of an attack ten years previous, of what was pronounced by the late Dr. Bumstead to be syphilis, he was treated rigorously for two months by Dr. B., he thinks, with mercurials. He was then treated by a Brooklyn doctor, who, after consulting his previous prescriptions, informed him that he would probably have a recurrence of his troubles, and would need treatment for some years.

At above time patient had a small sore on penis, with considerable discharge; had two suppurating buboes, which were opened by Dr. B. He was much weakened by this and subsequent treatment, and at that time also had a tedious abscess on neck. He has never had any cutaneous eruption, alopecia, iritis, osteocopic pains, mucous patches, or other syphilitic manifestations. Since that time he has had, on various occasions, numerous attacks of gonorrhœa, and also sores on his penis, which appeared from three to six days after coitus. These sores were treated and healed by the application of caustics.

Had his first coitus since January last. In consequence of his great liability to trouble, as shown by his history of previous attacks, he observed great care in cleansing the parts, and noticed no unusual symptoms.

October 7th.—He found a little drop of pus on clothing, which came from his meatus; at this time he had no pain. The discharge increased from day to day, and was attended by swelling of the penis, associated with severe pain in it and the groin. 10th. He entered the hospital; the discharge (urethral) was then a dirty yellowish brown color and very profuse. 11th. First saw a sore, which was situated on lip of meatus. Patient at this time contracted a severe cold, with stiffness in all his joints, and osteocopic pains; had pains in the glans penis, which were relieved by micturition. 13th. Glandular swelling and pain; decreased under simple treatment. 17th. Penis slightly swollen; a hardened, tender spot felt on glans penis, involving its entire lower half, which was the induration from sore in the urethra; outer margin of sore seen just at meatus and extending into urethra. The glands of the groin were swollen and painful, and about the size of a walnut.

Treatment.—Rest; application of carbolic and nitric acid.

October 21st.—A good deal of necrobiosis had occurred since last date. Put on:

Pil. mass hydrarg	gr. ij.
Ferri sulph. ex	gr. i.

One t. i. d.

Penis very sensitive to touch; applications of nitric acid were made on two occasions, and a tonic mixture, i.e., ferri et pot. tart., was given. 22d. A urethral fistula, formed by slough, opening into fossa navicularis at side of frænum. 23d. Slough increasing. Ordered hydrarg. chlor. mit. gr. ½ q., two hours. 54 of these powders were given; before the gums were touched they had a salubrious effect, decreasing the discharge, and rendering the pain less severe; anti-syphilitic treatment was then suspended, to allow secondary symptoms to appear, if possible. 27th. The sloughing is still present, but slowly progressing; considerable tenderness is felt along the anterior portion of urethra; has enlargement of epitrochlear glands. 30th. The phagedenic action is controlled. The slough cleared; nothing is left of the glans penis but two thin ales, the inner portion being entirely destroyed. The urethra is patulous, but there is now a feeling of induration in the urethral tract 1½ inches from the meatus, which is attended by pain and renewed discharge of pus, indicating that there is still some destruction of tissue continuing below the line of demarcation already formed, supposedly from the newly discovered indurated point. 31st. An endoscopic examination disclosed, at the point above mentioned, a spot of deep ulceration in the urethra.

November 30th. During the past month the treatment has been entirely tonic, despite which the patient has become cachectic, and was at one time slightly jaundiced; this, however, was relieved by brisk cathartics. The induration in the urethra has increased; the discharge is still present.

December 30th.—The patient has, during this month, developed on the dorsal surface and at the root of the penis, over the suspensory ligament, an hyperplastic mass, which is much more in appearance a cutaneous than a lymphatic enlargement, and has the feel of a gumma; he has also one of these in the right groin; they are about the size of hazelnuts.

January 1st.—As during the three months past no early syphilitic manifestations have appeared, a diagnosis of gummata of the penis was made, and the patient put on anti-syphilitic treatment, inunctions of ung. hydrarg., ʒ i. per day; and pot. iodid., gr. xxx., t. i. d., in increasing doses.

January 7th.—The hyperplastic material in each situation is resolving; the tenderness of the urethra, which was always present, has disappeared: the general condition is improving. 14th. The indurated masses are just perceptible; patient much improved; discharge and pain absent. 21st. The patient enjoys good health, has no indurated points, experiences no trouble whatever.

Attention is particularly called to the history of the appearance of the sore, which was, as the man is very intelligent and truthful, absolutely that of a specific infection—in period of onset, response to treatment, and all except the advance of secondary symptoms.

THE LEGAL AGE FOR MARRIAGE IN EUROPEAN COUNTRIES.—Austria: 14 years for both sexes. Germany: 18 years for males, and 14 years for females. Belgium: men, 18 years; women, 15 years. Spain: men, 14 years; women, 12 years. France: men, 18 years; women, 15 years. Greece: men, 14 years; women, 12 years. Hungary: Catholics and Orthodox, men, 14 years; women, 12 years; Protestants: men, 18 years; women, 15 years. Italy: men, 18 years; women, 15 years. Portugal: men, 14 years; women, 21 years. Russia: men, 18 years; women, 16 years. Roumania: men, 18 years; women, 16 years. Saxony: men, 18 years; women, 16 years. Switzerland, in the different cantons: men, from 14 to 20 years; women, from 12 to 17 years. Turkey: at puberty.—*Journal de Médecine, etc.*

NIGHT MEDICAL SERVICE:

A BRIEF STATEMENT OF THE PLAN OF NIGHT MEDICAL SERVICE IN ACTUAL OPERATION IN PARIS AND OTHER EUROPEAN CITIES, WITH A VIEW TO ITS INTRODUCTION IN NEW YORK.

By HENRI NACHTEL, M.D.,

OF PARIS, FRANCE.

(Read before the New York Academy of Medicine, February 19, 1880.)

I HAVE the honor to lay before this Academy for its consideration a summary of the plan of night medical service as adopted in Paris, believing that in New York, as in other great cities, grave accidents and cases of sudden and serious illness, that occur during the night, often do not obtain the prompt attention which they need. It is a well-known fact that there are many persons who have not a family physician, and who, in case of sudden and urgent sickness, lose much precious time before the needed medical help can be obtained, since the doctor may be absent or ill, or otherwise unable to respond immediately to the call, as will be seen in my *résumé* of the French reports on the night medical service established in Paris and other European cities. Having made inquiries as to whether such a service was in operation in New York, I was informed that nothing of the kind existed in this country, except that, in case of an accident occurring on the street, the police officer telegraphs for an ambulance to remove the patient to the hospital. But he has no instruction or power to send a physician to any person so injured, or taken suddenly sick at his private residence.

Would it not be a humane and excellent thing to have a night medical service established in New York on the same plan as in other countries? From a medical point of view it would be of great benefit to the profession, in giving us statistics of diseases occurring during the night in New York, as is done in Paris and other capitals in Europe.

NIGHT HYGIENE AND MEDICAL SERVICE.

Night in a physiological point of view.—The succession of day and night, and the meteorological changes which result, produce physiological modifications in the organism of living beings. The absence of sunlight, which is the cause of many of the changes that take place during the night in the atmospheric *medium*, invites man to repose and favors sleep.

Rest after the day's labor, and sleep—so essential to the repair of the organic forces—are two conditions which must be, above all others, taken into consideration in order justly to appreciate the nocturnal physiological phenomena.

Baerensprung, Froelich, Lichtenfels, Ladame, Mantegazza, and more recently William Ogle and others, have demonstrated that there is a nocturnal lowering of the temperature in man, due to the internal phenomena of nutrition.

If the temperature falls, the respiration diminishes—the respiratory movements being less energetic, and less frequently repeated (Becquerel), produce a depression of the organic forces, owing to the diminution in the production of carbonic acid during the night, and also, very probably, in great part, to the absence of the light.

This diminution of carbonic acid during the night, proved by several physiologists, evidently corresponds to the expression of the organic forces which takes place.

The experiments of Pettenkofer and Voigt show that during the night there is a large absorption of oxygen, making the quantity of this element much greater than during the day, and altering the proportion. They have observed that, in an adult twenty-eight years of age, the oxygen absorbed during the night amounted to 67 p. 100, while the carbonic acid exhaled was only 42 p. 100.

Night in a pathological point of view.—It is very easy to understand, after what has been said above, how much more exposed we must be during the night to suffer from the harmful influences that surround us, since the faculty of reaction is weaker than during the day.

In marshy countries and in damp localities there is nothing so dangerous as the evening fogs and dew. It is after imprudent exposure to their unfavorable influence that fevers generally present themselves. In the cities these fogs collect all the miasms and infectious germs that may exist. It has been, indeed, observed in a great number of cholera epidemics, that the disease generally made its appearance during the night.

In Munich, for instance, seventy out of a hundred cases have been recorded as occurring during the night.

But one must take into consideration another cause, namely, the evening cooling to which our organism is only too liable. Zimmermann has observed this injurious effect of night. "Cold nights," says he, "which follow warm days, are among the principal causes of the dangerous fever of Lower Hungary, where a great majority of the patients die."

During periods of excessive heat, it is nearly always after a nightly imprudence—such, for instance, as to sleep without sufficient covering—that diarrhœa and dysentery appear.

It is nearly always during the night that the first attack of asthma and gout appears. It is during the night that the fearful cough of a child affected with laryngismus stridulus comes to frighten the parents.

It is also then that the workman, who has spent all day far from his home, comes back to suffer the disastrous effects of his crowded rooms and confined air. How many cases of asphyxia have been the result of the accumulation of smoke in a bedroom, or of pernicious gases, or combustion which cannot find exit? And cases of poisoning by a leak in a gas-pipe, which has escaped attention during the night, are not infrequent.

Thus, certain flowers left in a bedroom sometimes have an evil influence on man's health.

Observation has proved that the most odoriferous flowers are the most dangerous. The lily of the valley, jasmine, tube-rose, and laurel-rose, among others, have produced accidents often fatal.

It is doubtless at the end of a day passed in expectation, anxiety and suffering, that despair, taking hold of the unfortunate, becomes the cause of the suicides which occur in the first part of the night.

NIGHT MEDICAL ATTENDANCE.

On different occasions, public attention in Paris has been called to the grave accidents and numerous cases of disease which had appeared during the night. Some of them were followed by death, because the help of a physician could not be procured. When, in 1869, a petition was presented to the senate in France, this body appointed one of its members to study the question. In the same year, Dr. Passant, General Secretary of the Medical Society of the Department of Charities, which, by the nature of its functions, had been able to study the question in a careful way, submitted for the first time to the Director of Public Assistance his project of night medical service, whose fundamental idea was the *utilization* of the police stations. This project, ac-

cepted in all its points by the director was about to be put in practice when the war of 1870 broke out. Two years later Dr Passant repeated his petition, and had the time the good fortune to see his project supported by Dr Nélaton. This gentleman, who had been commissioned by the senate in 1869 to make a report on the question, had decided to establish permanent police stations, in which he ordered an appointed doctor to be on duty all night, but acknowledged that Dr Passant's project by the very fact that it allowed the use of the police stations already existing, was more simple, more practical, and at the same time less expensive, and unhesitatingly abandoned his own notions to accept those of Dr Passant. But the bad state of his health, and soon after his death, did not allow him to give all his influence to this subject, and so, for the second time, the project of night medical assistance was laid aside. During this time Dr Passant's ideas made progress, and were accepted in foreign countries. The night medical service was inaugurated in Berlin in 1872, and two years later it was in operation in St Petersburg.

In 1875 Dr. Passant applied directly to the Prefect of Police, M. Léon Renault, who, understanding all the importance of such a project, adopted it almost completely, and in the month of November, 1875, presented to the municipal authorities of Paris a report on the measures to be taken.

I shall give here only an abstract of Mr. Renault's report:

"I believe I respond to an old and active public uneasiness in asking you to allow a new credit of 10,000 *francs*, for the purpose of insuring medical help to persons taken suddenly ill during the night. The cases in which the absence of such help has been fatal to patients are fortunately rare; still we occasionally see painful cases, whose reports, published by the press in a more or less exact way, only serve as an excuse for the most virulent attacks against the medical profession. . . . The work of doctors, which is among a thousand emotions and personal dangers, often in violation of all the laws of hygiene, makes repose at certain hours an absolute necessity for them.

"In another order of ideas, it is certain that the exaggerated fears of anxious families, and the uneasiness of the patients themselves, frequently expose the doctors to night-calls without sufficient reason. Indeed, they have a perfect right to be prudent, since more than once they have been betrayed and in danger of falling into traps laid by thieves who pretended to need their services for a patient. It is unnecessary to allude to the ingratitude of those patients who, after receiving the doctor's services, refuse him the most legitimate remuneration.

"These considerations explain the necessity for intervention on the part of the administration. This intervention will assure a threefold result:

"1st. That the person who may need the immediate help of a physician will know surely where to find one, and will not be exposed to the loss of precious time in repeated inquiries.

"2. That the physician himself will be able to respond promptly to the patient's call.

"3d. That the act of self-sacrifice accomplished shall not compromise his personal safety, and that he shall not be cheated of the just remuneration for his trouble.

"Doctor Passant, who is considered by the *préfecture de police* as one of its most devoted auxiliaries in his quality of chief physician (*adjoint du dispensaire de salubrité*), has occupied himself with this special question for several years, and has resumed his studies in propositions of a simple and practical character, which leave nothing to be desired.

"In each precinct physicians shall be invited to declare if they agree to submit to the calls which they may receive during the night.

"The name and address of those who have made this declaration will be inscribed on a board posted in the precinct police station.

"The person in need of a doctor will apply at the police station of his or her precinct, and will select on the board the physician whom he or she may prefer.

"A police officer will accompany the person to the doctor's house, and the physician to the patient's residence, and, the visit once made, will take him home again.

"On leaving him, he will give him a check for *ten francs*, which will be paid at sight by the cashier of the *préfecture de police*.

"According to the means of the patient, which will be subjected to investigation, the administration will demand the amount of the fee paid to the doctor; or, should the patient be unable to pay, the administration will assume the debt.

"It seems to me, gentlemen, that there is nothing to add to these resolutions.

"When they are sanctioned by your approval, they shall receive all necessary publicity to put them immediately into execution."

Soon after, a new notice, announcing the names of the physicians that had undertaken this service, for each one of the eighty police precincts in Paris, declared that this service would be started at 10 P.M., to close at 7 A.M., from the 1st of October up to the 31st of March; and from 11 P.M. to 6 A.M., from April 1st to September 30th.

"Doctor Passant informed the authors of the French Medical Encyclopedia (article Night, by Layet) that on the 6th of February, 1876, this night medical service was instituted in Paris, with the aid of 545 doctors. The number has since increased to 664, to the great satisfaction of the public and the physicians. . . . ."

The night medical service is established not only in St. Petersburg, but also in Moscow, Odessa, and Warsaw. It exists in Italy—in Rome, Milan, and Turin, where it has been organized by the exertions of Professor Facchioty. It has been started also in Lisbon. In France it will be shortly adopted by some of the largest cities—Lyons, Marseilles, Lille; it has been in activity in Algiers since March, 1878.

To Dr. Passant's project one point had been overlooked, on which, nevertheless, its author had particularly insisted, and whose importance could not be doubted, namely, that which relates to the possibility of establishing night medical statistics. This expectation has been fulfilled since the beginning of 1878. The following *bulletin*,* proposed by Dr.

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* Precinct.
Ward.

PREFECTURE DE POLICE

PARIS NIGHT MEDICAL SERVICE.

BULLETIN OF STATISTICS.

Indicate the sex of the person to whom the services have been given . . . . . .

Age. . . . . Years, ... Months.

Business. . . . . .

Nature of the disease. . . . . .

PARIS. . . . . , 18

(The Doctor's Signature.)

Passant, where no mention is found of the name of the person who has needed the services, does not in the least wound the more or less exaggerated susceptibilities of doctors and families, in regard to medical secrecy.

In order to show all the interest that attaches to the result of such statistics, I could do nothing better than to present the author's quarterly statistical *résumè*.

From April 1st to September 30th, 1878, 1,913 visits have been made in the night-time. In the months of July, August, and September, there has been a difference of more than 131 visits; and the average of nightly visits has been 11 for the same three months. Men are in the proportion of 34 per 100, women 32 per 100, and children 14 per 100.

The character of the diseases for which medical attendance has been needed permits us to group them under several heads.

In a first group he places all the affections whose principal and alarming symptom is suffocation. They are, placed according to their frequency: bronchitis, angina, affections of the heart, pneumonia, pulmonary congestions, croup, and asthma.

In a second group, the diseases whose predominant symptom is abdominal, namely: gastro-intestinal troubles, cholera morbus, hepatic, nephritic, saturnine colics, attacks of dysentery, strangulated hernia, etc.

In a third group he finds all kinds of hemorrhage.

In a fourth, nervous troubles: convulsions, neuralgia, and neurosis.

In a fifth, congestions and cerebral apoplexy.

In a sixth, abortions and *accouchements*.

In a seventh, traumatic accidents: wounds and contusions, fractures and luxations.

In an eighth, cases of poisoning.

In the ninth and last group, sudden and accidental deaths and suicides.

St. James Hotel, N. Y.

Reports of Hospitals.

MEMORIAL HOSPITAL, ORANGE, N. J.

Service of Dr. WILLIAM PIERSON, Jr.

(Reported by Thomas W. Harvey, M.D., House-Surgeon.)

CARCINOMATOUS STRICTURE OF THE RECTUM.—LUMBAR COLOTOMY.

July 22, 1879. H. D., æt. 55; United States; hatter; single; no history of diathetic tendencies in the family. For the last six months has been suffering from a dull pain in the rectum. Four months ago constipation began, and has continued ever since, the movements gradually decreasing in size and becoming ribbon-shaped. For the last few weeks he has had no natural stools; they have been small, frequent, and associated with pain. Two months ago he was treated for hemorrhoids by injection of carbolic acid, with success.

Has been gradually losing strength and ambition to work, but has a good appetite and digestion.

Physical examination shows an annular rectal stricture, admitting the finger, about two inches above the anus, with thickening and infiltration of the rectal wall, beyond the reach of the examining finger. The surface of the bowel was ulcerated, and gave off a copious, bad-smelling discharge. The anus was also thickened and indurated. The inguinal glands of both sides were enlarged.

The patient had been admitted with the idea of extirpating the rectum, but the extent of the disease was considered as contraindicating that operation. The patient remained in much the same condition until August 10th, except that he did not have any evacuation of the fæces during that period. On that date vomiting commenced, and he ceased to pass gas by the rectum; the bowels became very much distended. He refused to take any nourishment, as the attempt to swallow produced colic and violent emesis. On the 12th he took a glass of wine and half a cup of milk without vomiting, and on the 13th a glass of wine. On August 14th, as his condition was becoming serious, Dr. Pierson, in the presence of the staff of the hospital, opened the descending colon in the loin. The operation was performed with the usual antiseptic precautions. As soon as the intestine was opened there was a copious evacuation of fæces and gas. The bowel was attached to the skin with silk, and the external incision was closed with silver sutures, leaving a place for an anus.

The patient reacted well from the anæsthetic, and made a very rapid recovery from the operation, his temperature never at any time exceeding 100° F., or his pulse 90. On the first day he had a very large discharge of fæces through the artificial anus, and from that time till his death he had a regular movement twice a day, the incontinence not causing much inconvenience except when he had a diarrhœa.

The wound healed up completely in three weeks, union being delayed by a small abscess that formed in the lower part of the external incision.

The union of the intestine to the skin was by first intention, and there never was, at any time, either retraction or prolapse of the bowel.

The man recovered so well as to be about the hospital grounds, and got along very well for three months, the rectal disease extending all the time, implicating the bladder, and accompanied by a profuse discharge. In December he became bedridden; the pressure of the growth caused œdema of the legs and scrotum, and the cancerous cachexia induced a constant loss of strength and flesh. There were cancerous deposits in all the glands about the pubic region, and many of them went on to ulceration.

From this time he gradually sank, worn out by the pain and discharge, and died January 27, 1880, five months after the operation.

The symptoms preceding death were progressive asthenia, with difficulty in swallowing, pain and tenderness over the abdomen, tympanitis, and suppression of urine.

Autopsy, January 28th, twenty hours post-mortem.—The abdomen was the only cavity opened. The peritoneum contained about a quart of serum, and was studded all over with small white tumors of cancerous growth. The omentum was transformed into a solid mass of cancerous infiltration one inch in thickness. The pelvis was filled by a large tumor, which was removed en masse. This tumor consisted of the bladder, with walls one-half inch thick, the rectum, and the sigmoid flexure of the colon. These, with the ureters, the vasa deferentia, and the large blood-vessels, were all bound together by the growth, and were closely attached to the pelvic walls. The rectal mucous membrane was destroyed and in its place was a dark surface of

ulceration, giving forth a profuse discharge and an abominable smell. The relation of the artificial anus to the intestine was carefully examined. The descending colon had been opened without injuring the peritoneum, making it a complete Amussat operation. This was easily demonstrated to every one present at the autopsy.

Orange, N. J., Jan. 4, 1880.

Progress of Medical Science.

On the Uses of Chrysarobin and Pyrogallic Acid.—In Hebra's clinic, chrysarobin has not fulfilled the expectations that were formed of it. It was noticed especially that when applied over extensive surfaces, in psoriasis, it frequently excited inflammation of the skin, and that after the subsidence of this inflammation fresh spots of psoriasis not unfrequently appeared on the very spots where the inflammatory action had been most intense. When applied to a circumscribed surface, however, the remedy acted well. On the face and head it could not be used, on account of the discoloration it produced. In other skin diseases than psoriasis, chrysarobin was not found to possess any advantages over other remedies. On the other hand, pyrogallic acid, which was first recommended for psoriasis by Jarisch, on account of its chemical resemblance to chrysarobin, proved in Hebra's wards very useful in the treatment both of psoriasis and of other cutaneous affections. It was used in the form of a ten per cent. salve, which was applied to the affected surface with a brush twice a day. The parts were then covered with cotton wadding or linen, or, when the affected surface was very extensive, the patient was enveloped in flannel. The results were always good, but the cure was attained somewhat more slowly than with chrysarobin, except in cases of widespread eruptions, when the latter would excite inflammatory symptoms. The acid very rarely produced any local irritation, and it caused much less discoloration of the skin than chrysarobin. No symptoms of poisoning were ever observed, although the acid could always be detected in the urine. The individual psoriasis plaques disappeared under its use in from one to three weeks. Three cases of herpes tonsurans were well advanced toward recovery after eight or ten applications. In this affection the remedy is preferable to soft-soap, because it does not irritate, and to Wilkinson's salve, because it has no smell. In two cases of lupus, also, pyrogallic acid salve proved very useful. The nodules were destroyed in three days, and cicatrization was completed in from one to three weeks under the use of an indifferent ointment. Syphilitic infiltrations were also removed rapidly by the same remedy, but it proved less efficacious in epithelioma.—*Berliner Klin. Wochen.*, Nov. 24, 1879.

Action of Nitrite of Amyl on the Vessels.—The statements of different observers who have studied the action of nitrite of amyl vary considerably, both with regard to the vessels affected—some stating that only the arteries, and others that all the blood-vessels, are dilated—and with regard to the degree of the dilatation. With a view to settle these disputed points, Dr. Gaspey, of Heidelberg, undertook a series of experiments on curarized frogs, with the following results:

1. Observations on the uninjured tongue showed that the action of nitrite of amyl on this organ is very marked and is developed very rapidly, and that it affects both arteries and veins. The effect of the drug was noticeable immediately after the inhalation was begun, and continued to increase for about two minutes. The duration of the action depended upon that of the inhalation. When this was continued about two minutes, the vessels returned to their normal calibre in from ten to fifteen minutes. The degree of the dilatation of the vessels amounted at most to one-third of the original diameter. The rapidity of the blood current remained about the same; in the first minute it often seemed somewhat increased, but always fell back soon to the normal point. To determine whether the nitrite of amyl acts also on already dilated vessels, the intact frog's tongue was irrigated with a one-and-a-half per cent solution of common salt, which, according to Thoma, causes dilatation of the vessels and increased rapidity of the blood stream. It was found, then, that the dilatation produced by the amyl amounted at most to one-fifth of the previous diameter of the vessels.

2. Observations on the intact web of the frog's foot showed the same changes as in the tongue during the inhalation of amyl, but the dilatation was less marked, although it appeared as soon and lasted about as long. The blood-current was at first more rapid, but soon became much slower, and sometimes the blood stagnated entirely.

3. Observations on the tongue, after it had been cut with a knife, showed the same changes in the vessels as in the uninjured tongue. Vessels that had been divided and had ceased to bleed under irrigation with the salt solution, began to bleed again when the amyl was inhaled. The migration of the white blood-corpuscles was not affected by the inhalations.

4. Observations on the mesentery showed the same changes as in the tongue. As in the web of the foot, the blood current was at first, and for a very brief period, more rapid, and then became for a time slower than normal.—*Medic.-Chir. Rundschau*, Nov., 1879.

Salicylate of Soda in Urticaria.—Although Heinlein has stated that urticaria is sometimes produced by salicylate of soda, Pietrzycki reports three cases of this affection that were cured by the same drug. A girl, eighteen years of age, had suffered for four days from a violent attack of urticaria, which was most severe at night, and had begun with a chill and fever. Quinine controlled the fever, but the eruption remained as before. The salicylate of soda was then ordered in doses of twenty grains three times a day, and after the second dose the eruption and itching had entirely disappeared. Two months later the same patient had another attack. Forty-five grains of quinine were given in divided doses without effect, but two doses of the salicylate again effected a complete cure. Another girl, twenty-one years of age, had suffered for two days from urticaria, which was most severe at night, and was attended by a chill in the evening. In this case, too, quinine proved useless, while three twenty-grain doses of the salicylate cured the disease entirely. The reporter believes that these three cases justify the assumption that the salicylate of soda, when given in sufficiently large doses, is a very effective remedy for urticaria.—*Medic.-Chir. Rundschau*, Nov., 1879.

Trichinæ in Fish.—Trichinæ were found in a pike that was recently caught in the North Sea, near Ostend. Dr. Clendenin, of Ostend, examined the flesh under the microscope, and found it full of the parasites. It is supposed that a shoal of this fish

had eaten the offal in the harbor of Ostend, and that the parasite had been conveyed to the fishes in this way.—*Med.-Chir. Rundschau*, Nov., 1879.

Cedron as a Substitute for Quinine.—Admiral Lapellin draws attention to a bean which is used by the inhabitants of Central America in the treatment of the cold fever, and which is said to be a good substitute for quinine. Dr. Coignard, who obtained the remedy in Puerto Arenas, Costa Rica, obtained favorable results with it, and Drs. St. Père and Quesnel found it even more powerful than sulphate of quinine. The bean is cut into bits as large as a pea, several of which are given in the interval between the paroxysms. This almond or bean is obtained from the simaruba ferruginea.—*Med. Chir. Rundschau*, Nov., 1879.

Subcutaneous Osteotomy for Genu-Valgum.—At the meeting of the *Société de Chirurgie*, on December 31, 1879, M. Terrillon read a report on the operation performed by Dr. Beauregard, of Havre, for the relief of genu-valgum. The operation, essentially that of Reeves (see Medical Record, Vol. XIV., p. 451), consisted in separating the internal condyle of the femur, by means of a chisel introduced through a small opening at the internal and lower portion of the thigh, then straightening the leg, and confining it in that position until union took place. The absence of all grave phenomena, and the rapidity of the recovery, rendered this a very interesting case. The result of the operation was rendered less satisfactory than was hoped for by the obstinacy of the patient, who insisted upon rising and walking on the fourth day, and upon leaving the hospital on the fifth. This operation has been performed in France by M. Beauregard only, and M. Boeckel (of Strasbourg). The procedure most favored in France is forcible straightening after the method of M. Delore, the danger from which is thought to be much less than that from osteotomy, which has induced severe arthritis, anchylosis, and even death. The reasons which led M. Beauregard to practise osteotomy were the youth of the patient—he was eighteen years of age—and the impossibility of determining the point of fracture in Delore's method. To obviate this objection, M. Terrillon has presented the Society an instrument recently constructed by M. Collin, by means of which the point of fracture can be accurately located, and the amount of force used regulated.—*Gazette Médicale de Paris*, January 3, 1880.

Elytrorrhaphy.—M. Le Fort reports three cases of elytrorrhaphy performed according to his method by a physician of Liege. One of the patients, a young girl, put her double vagina to frequent use, but the results of the operation did not seem to be impaired thereby.

M. Duplay states that he has performed M. Le Fort's operation twice with almost perfect results. In one of the cases, a woman fifty years of age, but still menstruating, no apparatus had been able to support the uterus in place. The cystocele was completely cured by the operation, but a certain degree of rectocele persisted.

Cysto-Fibro-Sarcoma of Muscle.—M. Gross, of Nancy, reports a case of cysto-fibro-sarcoma of the quadriceps. The tumor was removed once, but returned, and the leg was then amputated at the hip-joint. The femoral artery was ligated below the origin of the profunda, and the patient lost a good deal of blood. He recovered from the amputation, but died six months afterward with more than fifty secondary tumors in the lungs, liver, vertebral column, and cranial bones. The femoral artery bifurcated immediately below Poupart's ligament. M. Gross draws attention to the great rarity of primary sarcoma of muscles, the very existence of which has been denied by Cornil and Ranvier; Volkmann, however, has cited two cases of it, and this one makes the third on record. In discussing this case, M. Farabœuf said that surgeons should always disregard the statements of anatomists with regard to the point of origin of the profunda artery, and act as if it arose only a finger's breadth below Poupart's ligament.—*Gazette Médicale de Paris*, January 17, 1880.

Treatment of Cancroid by Chlorate of Potash.—An interesting discussion on this subject took place recently in the *Société de Chirurgie*, in Paris. M. Després opened it with an oral report on a memoir of M. Pilatte, of Orleans, on the treatment of epithelioma of the face by chlorate of potash. From a consideration of fifty-one cases, the author had arrived at the conclusion that the efficacy of the remedy is decided in cutaneous cancroid, but that it is useless when the process has involved the mucous membranes. Of eight cases treated by himself, five had proved successful and three were failures. M. Després, however, thought that there had been errors of diagnosis in the successful cases reported by M. Pilatte; that the disease, in his opinion, had not been true epithelioma, and, at all events, the cases had not been followed long enough to make sure that the cure was permanent. He believed that chlorate of potash had no curative power at all over epithelioma.

M. Ferrier stated that ulcerations of the face, resembling cancroid, are often met with in old men. Chlorate of potash often does good service in these cases, but it would be dangerous to rely on it in true epithelioma.

M. Le Fort cited a case of ulceration at the angle of the eye, which was thought to be epitheliomatous. It was somewhat inflamed, and while waiting for an opportunity to operate, poultices were applied. The ulcer healed rapidly under this simple application.

M. Verneuil observed that in all the cases reported as cured by chlorate of potash, the affection was not epithelioma, but polyadenoma of the sudoriparous glands. On the face, aside from syphilitic and scrofulous ulcerations, we meet with true epithelioma or epithelial papilloma, sudoriparous polyadenoma, and sebaceous polyadenoma, this last being very rare. The diagnosis of epithelioma is easy, and it is readily differentiated from sudoriparous adenoma, the points of election for which are the alæ of the nose, the forehead, and the eyelids. Epithelioma is not modified at all by chlorate of potash; sudoriparous adenoma, on the other hand, may disappear spontaneously, or it may often be cured by poultices or by chlorate of potash. He prefers, however, to cauterize the ulcer with chromic acid, on account of the greater rapidity of the cure.

M. Perrin said that the difficulty of diagnosis depended chiefly on the fact, that the tumors may undergo transformation. He cited the case of a man, aged sixty years, who had a sebaceous adenoma of the ala of the nose. This was cured in a brief space of time by acetic acid, but ten years later a true cancroid developed on the eyelid. He thought the sebaceous adenoma less rare than M. Verneuil claimed. —*Gazette Médicale de Paris*, Jan. 11, 1880.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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ON SEVERAL MEDICAL TOPICS.

The late annual dinner of the Alumni Association of the Medical Department of the University of New York, was an interesting occasion in many respects. Not only was there gathered together a large number of the friends of the school—not only was the season, as usual, an enjoyable one—but many points were brought out in the toasts, a reference to which is of interest to the profession at large.

The President, Prof. Roosa, very appropriately opened the proceedings by an interesting address, giving the history of the organization of the Association, its rapid growth, and sketching its present usefulness and future work. The question of endowment, which lies at the bottom of true independence in teaching, was discussed with characteristic earnestness, and the hope was ventured—not in vain, we trust—that at no distant date the rich laymen may come to the aid of the colleges, by making them pecuniarily independent of the number of fees received from students. The question will then be, not how many students may attend a session, but what extent of scholarship may be reached.

Chancellor Crosby could not resist the temptation of wishing God-speed to the recent medical graduates. This was well enough as far as it went, and called forth a hearty response from all present. The less chance there is, however, for success, the greater the necessity for good wishes to that end. It is pleasant, nevertheless, to look on the bright side, and believe that there is room for all at the top. The applause which greets this sentiment at commencements shows how deeply it has taken root in the mind of the average student, and how necessary it is to make exceptions in favor of present company.

Prof. Loomis, in responding to the toast of the Medical Department of the University, took advantage of the opportunity to say a few words upon the much-hackneyed subject of medical education. The graded course did not meet with favor in his eye, and he believed that Harvard and the University of Pennsylvania would find their mistake. It was necessary that the student should keep the whole subject of medicine constantly before him. He should see the same cases over and over again, hear the same sounds, smell the same odors, and listen to the same principles. Preliminary education was quite necessary. It made better students, better doctors; but such well-trained men should be sent from the offices of the Alumni. When the Alumni would see that their own sons were graduates in the arts before sending them to study medicine, then the reforms so often desired would begin in the proper place—at home. The lengthening of the term to eight months each, for three sessions, was earnestly urged, and the necessary cooperation of the Alumni solicited. This suggestion is full of significance, and shows in what direction reforms will be initiated in the lecture term of the University. In fact, the necessity of such a change must force itself upon the various medical schools throughout the country. In regard to the abolishment of the graded system, few will agree with Prof. Loomis. It has not yet proved itself a failure. On the contrary, it is gaining friends every year among the educators of the country. Of course, such a system carried to an extreme would be disastrous to the student. While at the end of each session he should be examined only in the branches belonging to the same, he must not conclude that in his final examination for his degree he must not be prepared to review the whole range of subjects. The advantages of a graded system over the ordinary one are that a more systematic course of study is taken and a greater amount of time is allowed for attendance upon lectures. But the profession is being gradually educated to that point, and the various colleges over the country will soon have all the endorsement for the change which is necessary to establish its utility and insure its success.

Other speeches were made on the occasion referred to, but were of a more or less humorous and personal character, and necessarily treated of subjects of a comparatively narrow application. But Mr. John Foord, the editor of the New York *Times*, in responding to the sentiment of the daily press, gave his subject a much wider range. In speaking of the daily papers as disseminators of knowledge, he deplored the fact that the medical profession was so backward in allowing its light to shine before an appreciative public. The forcible and eloquent appeal which he made in favor of free advertising was calculated to carry conviction to the hearts of many wavering followers of the Code. In quoting from a recent editorial of the MEDICAL RECORD, he could not understand why it was so much the exception for the deserving medical men to get noticed by the daily press; why it was so common for such as are hardly second rate to have a

newspaper notoriety; and how the true dignity of the profession was best preserved by a modest silence. Of course, he assumed that the daily press was discriminative, and that the honor and dignity of the profession could be safe in its hands. Not that the daily press does not mean well enough to the profession, and would not do its utmost to see that justice is rendered; but, from the very nature of the case, this is impossible. The public are not yet educated to the point of knowing the difference between ordinary and extraordinary professional talent. The science of medicine is one by itself; and so many conditions have to be taken into account in estimating the value of a new method of treatment, the significance of a discovery in medical science, or the brilliancy of an operation, that an educated medical man is alone equal to the task. It is on this account principally that members of the secular press, who have at best a very superficial knowledge of medicine, are led into the error of so often mistaking men, who are considered merely second-rate by their peers, for the leaders of medical thought, the inventors of new systems, and the pioneers in scientific research. There are also many other reasons which are apparent enough to every medical man, why, in the present state of public opinion, the dignity of the medical profession is best preserved by a modest silence. The latter is very hard for some to do, who feel that the world should know of their works; but the majority of the profession are still content to labor and to wait. Our best men are not in need of patronage, having nothing to gain by increased publicity, and it has not yet been proven that the world at large has suffered as the result of a professional modesty that forbids the trumpeting of petty cures, or the heralding of so-called remarkable medical discoveries.

INANITION AT THE SHEPHERD'S FOLD.

THE occurrences at a charitable institution in this city, known as The Shepherd's Fold, have recently excited a great deal of interest and indignation. The discussion that was thus aroused has sufficiently covered the moral and legal sides of the question; and the thrifty Shepherd has been placed in the Tombs, there to meditate upon the disadvantages of his peculiar system of household economy. We may now, therefore, examine more especially the medical aspects of the case.

The Shepherd's Fold is an institution which takes in homeless children between the ages of two and sixteen, professing to rear them, educate them, and eventually find them places of employment. During the past year there have been between twenty and thirty in the fold all the time. On the 26th of December last, a boy of five years was taken to St. Luke's Hospital, where he was found to be in a condition that could only have been brought about by extreme neglect. An investigation followed, which showed that he was one of many who had been treated in the same way. The facts in regard to their diet were particularly extraordinary, and it is these which especially claim our attention.

There were twenty-four children at the Fold, ranging in age from two to sixteen. Four of the older ones, however, had extra food from various sources. For the other twenty the diet was as follows: at breakfast one cup of condensed milk, diluted eighteen or twenty times, was served out, together with rye bread. Sometimes, when the milk did not hold out well, corn-meal was added. For dinner two quarts of beans were made into a soup and distributed among the children. For the bean-soup an equal quantity of pea-soup or hominy was at times substituted. There was bread for supper. Twice a year, on Thanksgiving Day and Christmas, meat was furnished. No butter was supplied, nor any form of condiment or delicacy. The children lived on an exclusively spoon diet; indeed they had nothing but spoons with which to eat. The table was bare of a cloth, the children sat around it on soap-boxes, and if they wished any water, had to supply themselves from the adjoining wash-room.

The amount of food consumed each day by the children in the establishment was seven loaves of black bread, one pint of condensed milk, and two quarts of dried beans, or its equivalent in peas or hominy. To this may be added an irregular supply of corn-meal amounting to four cupfuls a day.

The medical testimony at the trial was unanimously to the effect that this amount of food, divided among eighteen or twenty children, would be insufficient to support life for any great length of time. It may be well to see how strongly facts substantiate such a statement.

Seven loaves of rye or black bread weigh $9\frac{3}{4}$ pounds. Taking the analysis usually given of wheat bread, and remembering that in rye there is more starch and less nitrogenous matter, there would be in the seven loaves, $\frac{3}{5}$ lb. of nitrogenous matter and $4\frac{3}{4}$ lbs. of non-nitrogenous matter, besides mineral salts and water.

In two quarts of beans, which weigh $3\frac{1}{2}$ lbs., there are about $\frac{1}{2}$ lb. of albuminous matter and $1\frac{1}{2}$ lbs. of the non-nitrogenous. In four cups of Indian-meal, weighing 1 lb., there are about $\frac{1}{4}$ lb. of albuminous and $\frac{3}{4}$ lb. of non-nitrogenous matter. In a pint of condensed milk there are 2.2 ounces of casein and 4.6 ounces of non-nitrogenous matter. The total daily amount, therefore, of water-free food for the twenty children was as follows:

	Nitrogenous.	Non-nitrogenous.
Bread, 7 loaves.....	$\frac{3}{5}$ lb.	$4\frac{3}{4}$ lbs.
Beans, 2 quarts.....	$\frac{1}{2}$ "	$1\frac{1}{2}$ "
Corn-meal, 4 cups.....	$\frac{1}{4}$ "	$\frac{3}{4}$ "
Condensed milk, 1 pint...	$\frac{1}{7}$ " (2.2 oz.)	$\frac{1}{3}$ " (4.6 oz.)
Total.....	$1\frac{3}{5}$ lbs.	$7\frac{1}{4}$ lbs.

Total of both kinds of water-free food per day, about 8 pounds.

Now, according to the estimates of Dr. Parkes, the amount of water free food per day necessary to the adult, under average conditions, is about $\frac{1}{20}$ of the body weight, or 15 oz. to every pound. An infant of six or eight months, weighing 20 pounds, would require daily 3 oz., and twenty children, averaging 50 pounds in weight, would require 9¼ pounds of water-free food per day. The actual amount given the children of the Fold was 1¼ lbs. less than this. Now, the average age of the twenty children was eight years, for which age a weight of 50 pounds is small.

There can be no doubt, therefore, that the amount of food supply was quantitatively deficient. It is to be remembered, further, that there were actually twenty-four children, besides Mr. and Mrs. Cowley, and some of the provisions here assigned to twenty children were often in reality consumed by the additional four. On the other hand, the children added to their allowance by begging on the street.

It will be noticed that the deficiency of food was quantitative and not qualitative, the proportion of plastic to non-nitrogenous matter being nearly at the proper rate of one to four or five. It is known that starvation from mere quantitative deficiency is very slow, while that produced by lack of a particular food element is nearly as rapid as when food is entirely taken away. This fact doubtless explains the condition of the children when examined. Only one boy had been sick during the past year. Fifteen of the children, however, were emaciated, more or less stunted in growth, had enlarged glands, and some form of skin disease or catarrhal trouble.

The case of Louis Victor, a child of five years, presented the results of an insufficient diet most typically. When brought to the hospital, he was emaciated and anæmic to the last degree, and the muscles of his back were so weak that he was bent over like a little old man. His weight was about seventeen pounds, and his height thirty-three inches. The average weight of a child of that age is about forty pounds; the average height thirty-eight inches. There were bed-sores on the child's back, and there was an ulcer on the ankle; his legs were œdematous. The stomach was irritable, and for weeks the child had had a diarrhœa. Great dulness and apathy of mind existed, and the child was at first constantly moaning and calling for something to eat. There were no evidences of organic disease, nor any traces of rickets. The emaciation and weakness had been undoubtedly aggravated by the chronic diarrhœa, but the general condition could only be attributed to the prolonged deprivation of food. Under the care of the hospital he has steadily improved.

We have gone over the chief points of medical interest in this case, and there is but one moralization which need be suggested by them. All accounts of famines show that the deprivation of food inevitably stimulates the worst and lowest impulses, and obscures every good feeling. The starving man becomes a beast, with but one desire, that of satisfying himself at any cost. It follows that, in attempts to cultivate the better qualities, to educate and improve children, the temporal wants must first be supplied. The beauty of holiness can never be felt by the famished. Innutrition is the direct antagonist of morality, and Satan can develop a world of wickedness out of a constant diet of bean porridge.

A LONG OR A SHORT CODE OF ETHICS.

At the meeting of the Councillors of the Massachusetts Medical Society, on February 4th, the committee appointed to draw up a code of ethics for the Society, presented majority and minority reports. The code approved by the majority was long and minute. It bore the evidences of extensive research in ethical literature past and present, and supplied directions for every emergency of conduct. The minority code, drawn up by Dr. Henry J. Bigelow, was very brief, and presented the general principles which should guide the physician in his relations with his patients and colleagues.

The debate upon the reports was highly interesting, and, at times, flavored with a little bitterness. Dr. H. I. Bowditch, referring to the minute directions in the majority report as to courteous and moral conduct, said that he had practised medicine for fifty years, and had never read a paper so derogatory to the profession. Dr. Cotting, who drew up the majority report, believed it impracticable to act on the basis that every doctor is a gentleman. And Dr. Bigelow would not wish the public to know that he belonged to a club in which it was necessary to make a law to the effect that its members shall not steal spoons.

The minority report and the short code were finally adopted by a considerable majority, a decision which will meet general approval.

The debate brought out a certain unpleasant fact which lies at the bottom of the whole difficulty. Nobody likes to say it, perhaps, but each one will individually admit, that some doctors are gentlemen, and some are not. The former do not need a code, and feel the indignity that a detailed and exacting one puts upon them. The latter do need a code, and the fuller it is, the better for them, provided it can be enforced. Committees on codes are thus placed in the embarrassing position of having to prepare a mixture which shall be at the same time astringent and laxative. They chose the wisest way out of the difficulty by offering the tonic of an essay on the general principles of etiquette and ethics. These, with some practical directions for the beginner, ought to be enough.

THE ANTI-VIVISECTIONIST MOVEMENT.

THE memorials to the legislature protesting against the anti-vivisection bill, and which are published in another column, are powerful appeals in favor of science and against maudlin fanaticism. It seems almost absurd that in the nineteenth century, and in face of its advanced civilization, that such a course on the part of representative scientific bodies should be necessary. But the anti-vivisectionists are too bigoted not to be enthusiastic, and what they lack in argument to prove their point they make up in misrepresentations. It is true this is the old story, but the profession must not lose sight of the possibility of the new bill becoming a law. The memorials to which we have already alluded are the expressions of the opinion of the entire profession, and our legislators should be made to feel their force by the well-directed and personal efforts of their medical constituents.

THE paper by Dr. Nachtel, in this number, will doubtless be the means of calling the attention of our readers to the workings of the medical night-service in Paris. In a future number we shall take occasion to allude in detail to the merits of the system.

WE call attention to the communication, published in another column, from the committee who drew up and presented the bill for the creation of a State lunacy commission. The arguments in favor of the bill are concisely given, and are altogether unanswerable.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, January 28, 1880.

DR. T. E. SATTERTHWAITE, PRESIDENT, IN THE CHAIR.

REPORT OF THE MICROSCOPICAL COMMITTEE.

THE uterine tumor, presented by Dr. John C. Peters at the stated meeting December 24, 1879, has been examined by the Microscopical Committee, and found to consist of unstriped muscular fibre and fibrous tissue. No evidence of either sarcomatous or carcinomatous tissue was found. Attached to the inner surface of the uterus, at its upper portion, was a mass of degenerating tissue about three-fourths of an inch in diameter. It had the gross appearance of a portion of a placenta, but the changes which it had undergone rendered microscopical examination unsatisfactory.

Signed,

W. M. CARPENTER.
T. E. SATTERTHWAITE.

SARCOMA OF CHOROID AND OPTIC NERVE.

DR. C. S. BULL presented a specimen of intra-ocular tumor removed by operation from a woman aged twenty-six years.

Sixteen months before, two days after childbirth, patient noticed that she was totally blind in left eye, and that the eye was abducted. Does not know how much longer the sight had been affected, as she had never noticed it before. The eye remained quiet and free from pain till six months before I saw her, since which there has been constant pain in eyeball, temple, and supraorbital region. When I first saw her the eye was slightly prominent, there was a beginning ciliary staphyloma upward and outward from the cornea; ant. chamber annulled; pupil dilated ad max, and edge of iris doubled back; lens lying against cornea, but transparent; no reflex from fundus; tension, +2.

Diagnosis.—Intra-ocular tumor, detachment of retina, dislocation of lens—V=O.

Enucleation.—At junction of nerve with sclera was found a thick, hard nodule of tissue, which surrounded the nerve, and was cut through with some difficulty. After removal of the eye this growth was seen to extend back immediately around the nerve for some distance, so as much of the nerve was removed with the surrounding growth as could be pulled forward out of the optic foramen and excised. The growth did not apparently extend into the orbital tissue generally

On opening the eye in the equatorial region a tumor of the choroid was found occupying the posterior two-thirds or three-fourths of the eye, pushing the retina before it, and extending through the sclera at the optic nerve, following the nerve and sheath as far back as it could be examined.

The tumor, exterior to the eye, has been examined and found to be white sarcoma, of the round-cell variety, though there were portions in the sheath of the optic nerve where there were many fusiform cells. This sarcomatous infiltration involved the nerve itself as well as the sheath, and in some places had produced pronounced atrophy of the nerve-fibres.

Position of growth not common—generally more anteriorly.

The vitreous was entirely absorbed.

HARE-LIP.

DR. POST presented a photograph of a double hare-lip, complicated with intermaxillary fissure and intermaxillary projection. The patient was a boy seven years of age. The intermaxillary bone extended as far forward as the tip of the nose, and the intermediate portion between the two lips was applied directly to the intermaxillary projection. An operation was performed, and consisted in separating the integument from the intermaxillary projection, then cutting away the projection, adjusting the inner margins of the lips, and using the integument between for the columna. There was a considerable flow of blood, some of which found an entrance into the trachea, giving rise to considerable obstruction in breathing. Toward the close of the operation respiration was entirely suspended for several seconds, necessitating the employment of artificial respiration by Sylvester's method.

SYME'S AMPUTATION FOR CARIES OF TARSUS.

Dr. Post also exhibited a foot which he amputated two weeks before, belonging to a girl aged fifteen years, on whom, during the month of March last, he had performed excision of the lower end of tibia, fibula, and astragalus. The ankle-joint had been severely injured while on a sleigh-ride more than a year ago, during the Christmas holidays. When the

patient was admitted to the Presbyterian Hospital, shortly afterward, all the parts about the ankle were penetrated by sinuses, through which there was a copious discharge of pus. During the operation of examination, the principal point of disease was found in the joint between the astragalus and os calcis. The os calcis did not seem to be carious, except a very superficial portion. The latter was scraped accordingly. An immovable apparatus was applied, and strong hopes were entertained regarding the healing of the wound. She left the hospital during the summer, and returned again during January. The disease had increased in extent, and Syme's amputation was performed. The whole os calcis was found in a carious condition. Patient has been doing well since the operation.

MULTIPLE GLANDULAR TUMORS OF THE NECK.

Dr. Post presented a glandular tumor of the neck, which was of interest in connection with the history of the case. The patient presented himself four years before, with an enlarged lymphatic gland on the same side of the neck, which gland was duly excised. Two years subsequently a similar growth appeared on the same side of the neck, and a few months ago a third tumor in same locality, each of which was duly excised. Strange to say, there had been no enlargement of the glands on the opposite side of the neck.

Dr. Post lastly exhibited a small lipoma from the arm of a lady. The peculiarity of the case was, that the growth was deeply imbedded in the fatty tissue of the limb.

BONY ANCHYLOSIS OF THE VERTEBRÆ.

Dr. Peabody exhibited a specimen of bony anchylosis of the second and third cervical vertebra, removed from an adult. There was no history obtainable, as the bones were removed at the same time with similar ones from other bodies, and the condition referred to was discovered accidentally, when too late to identify ownership. The bones were joined by these bodies, transverse and spinous processes.

Dr. Howe had seen two cases in living subjects in which there was good reason to suppose that such an anchylosis existed.

Dr. Post had seen the bodies of three vertebræ of the horse joined together by a bony bridge.

Dr. Putnam-Jacobi remarked that such a condition was frequently seen in arthritis deformans.

CYSTIC CALCULI—SPASMODIC ACTION OF GALL-BLADDER.

Dr. Putnam-Jacobi presented the gall-bladder and bile-ducts from a patient who, during life, had suffered, at intervals, from severe colic in the right hypochondrium.

The first occurred shortly after confinement with twins, succeeding to a painful pregnancy. The paroxysm was preceded by a severe purgation, occasioned by podophyllin, after which the patient had fainted. This first paroxysm lasted almost continuously for three days, and was followed by great soreness in the hypochondrium persisting for a week. At this time the patient was seen by Dr. Sands, who naturally suspected biliary colic, but hesitated to make a positive diagnosis in the absence of jaundice, symptoms of obstructions to the flow of bile, or the discovery of gall-stones in the fæcal passages. After this first attack, the patient remained free for two and a half years. Then, a few months before consulting me, she had another paroxysm, occurring after great fatigue. And, finally, a week before I saw her, she had suffered from a third, which came on during dinner, very shortly after the first ingestion of food. At the time I examined the patient, there was great tenderness, on pressure, in a limited part of the right hypochondrium, in the region of the gall bladder. No enlargement of this viscus could be discovered. The pain was said always to be exactly limited to the right half of the epigastrium, to be of the most violent and agonizing character, to last from half an hour to an hour or two, subdued only, with great difficulty, by chloroform, in fact, "seeming to wear itself out, rather than to yield" to the anodyne. Vomiting did not occur spontaneously, but once followed the inhalation of chloroform, and occasioned immediate relief. Without an anodyne the pain would last ten or twelve hours. During the last years of the patient's life, these paroxysms returned at irregular intervals, generally of two or three months; but occasionally they happened twice in one month. They nearly always occurred after a few hours of great fatigue, or of moral depression, and then came on so soon as the patient began to eat. In the later attacks the pain extended all over the epigastrium. Finding that the pain had been so speedily relieved by vomiting, the patient was directed to take an emetic of sulphate of zinc whenever the pain began, and with this the attack was always promptly aborted.

The events preceding the first attack (pregnancy, parturition, purgation, with an hepatic stimulant), as well as the form of the paroxysm, evidently pointed to gall-stones, which, from the negative symptoms, could not have descended below the cystic duct; on the other hand, the time at which the attacks occurred, their relation to eating and to fatigue, and the rapid relief afforded by vomiting, seemed to intimate that the colic depended, in part at least, on a spasm of the pylorus, excited by the first contact of food with the mucous membrane of the stomach.

The patient dying of a disease unconnected with the liver, the latter was carefully examined. The gall-bladder was found enlarged, adherent throughout to its fossa, not projecting beyond the free border of the liver, its mucous coat thickened and chronically inflamed, and its cavity filled with mucus and a mass of gall-stones, nearly all the size of a cherry-stone. One, however, was the size of a walnut, and lay precisely over the cystic duct temporarily occluding it. The duct itself, as also the hepatic duct and the communis, were all perfectly normal in calibre. It seemed impossible, in the absence of thickening or of dilatation of these ducts, that even the sand from the calculi could have been in the habit of passing through them. It seemed evident that so far as the colic depended on the biliary passages, it must have been due to spasmodic contraction of the gall-bladder alone; that the calculi only presented at the mouth of the duct, but had never really engaged in it.

The pyloric extremity of the stomach was intensely hyperæmiated, and the mucous membrane roughened as if from loss of epithelium. The rest of the stomach was rather unusually pale. There was no sign of gastric ulcer. There seemed reason to suppose that this condition would induce an irritable intolerance of the presence of food, that might lead to such a spasm of the pylorus as had been inferred. The relief afforded by the emetic would have been due, on the one hand, to the evacuation of the irritated stomach; on the other hand, to the throwing back into the gall-bladder of the presenting calculus. Since, normally, there is a close consensus of action between the pylorus and the gall-bladder, the bile

beginning to flow from its reservoir at the same time that the pylorus dilates *actively* to permit the passage of food, we may ask whether the chronic hyperæmia surrounding the pylorus were not the expression of a reflex irritation starting from the gall-bladder. The nervous connection between the filaments of the hepatic plexus and those other branches of the cœliac which supply the orifices of the stomach, is, of course, extremely close. Having once traced the history of such a case to its complete termination, it would seem impossible ever again to hesitate in the diagnosis of vesicular or cystic calculi, with a similar group of positive and negative symptoms.

THROMBOSIS OF AORTA.

Dr. Delafield presented a specimen of thrombosis of the aorta, with the following history:

A woman was admitted into Bellevue Hospital twenty-four hours before death, with a history that she had been suffering for four days with severe dyspnœa. Her breathing was very labored, her face was livid, the skin of her whole body was cyanotic, the radial pulse could not be felt at all, the pulsation in the larger arteries was very indistinct, and the heart-sounds could not be heard at all. She continued in this condition until she died.

At the autopsy the cause of the dyspnœa was found to be in the condition of the aorta just above the valves of the heart. The whole extent of the aorta was in an advanced condition of atheroma. Every here and there the inner surface of the vessel was roughened, and at such spots small coagula were adherent. Immediately above the aortic valve was a much larger coagulum of blood, forming a thrombus sufficient in size to completely close the orifice of the aorta at that point.

This was apparently the cause of the patient's death. The aortic valves themselves were not changed. The heart was normal, except some dilatation of the left ventricle.

He remarked that thrombosis of the aorta was not a very infrequent occurrence, but it was quite infrequent to have it cause death, as in the case presented.

Dr. Finnell presented the uterus of a prostitute who was supposed to have been murdered by strangulation, after having been struck upon the head with a sharp instrument. The specimen showed marked evidences of perimetritis and ovaritis. Dr. F. remarked that such conditions were common in women of that class.

MULTIPLE TUMORS OF THE CRANIAL, SPINAL, AND SYMPATHETIC NERVES WITH REMARKABLY FEW SYMPTOMS.

The President then presented mounted specimens of the above disease, with microscopic slides.

The following is the history of the case: M. D., 25; Canada; single; ladies' maid. Was admitted into the Presbyterian Hospital October 14, 1879. From her statements it was learned that at thirteen years of age she had small-pox, the attack lasting two months. During convalescence both lower extremities became paralyzed. Strychnia was given without apparent benefit, but the electrical current, in some form, proved useful, and she regained motion to some extent. Subsequently severe pain was established along the course of the sciatic nerves. The patient was free from uterine trouble, and gave no history of syphilis.

When admitted to the hospital she was found to have diminished sensibility in the right foot; motion also was limited. Under the continuous current she improved, however, and on October 23d was walking with greater ease; still, dull pain in the limbs was experienced at night. On November 1st she was taken with nausea and vomiting, and, subsequently, diarrhœa. This latter complication hastened the fatal issue, which took place November 4, 1879. Previous to death a large tumor had been detected in the right iliac fossa, and a diagnosis of sarcoma had been entertained.

At the post-mortem examination, forty hours after death, the *heart* and its *sac* were normal, both in substance and contents.

No pleuritic adhesions were found, and except that the lungs were œdematous, they exhibited no lesions upon either side of the spinal column, and along the line of the intercostal spaces chains of little bead-like tumors were seen. Their real nature was not at the time suspected.

On exposing the abdominal cavity, the tumor detected before death was found to embrace and include the cords of the lumbar and sacral plexuses, constituting a mass the size of one's head. So firmly was this new formation connected with the bone that the peripheral lamella was detached during the removal of the mass. Separating the growths, they were found to vary much in size; some were no larger than a pea; others were as large as a goose-egg. They were either on the sides of the nerve-cords, or pierced them centrally. The whole mesentery was studded with them, so that to the casual eye they looked like enlarged lymphatic glands.

The *spleen* was normal and quite firm; weight, four ounces. No tumors were noticed in the intestines. On the anterior surface of the *stomach*, just beneath the peritoneum, was a tumor the size of a walnut. The *kidneys* exhibited parenchymatous changes, but otherwise they were not abnormal.

The remainder of the dissection was carried out by Dr. Prudden, Lecturer on Histology at the College of Physicians and Surgeons, from whose notes the following description is taken: The spinal canal was opened, but no tumors were found within it. "The intercostals were thickened throughout and beset with numerous tumors up to the size of a small almond. Some of these extended through the intercostal foramina, which were enlarged. Small tumors were found on various branches of the fifth nerve, also on the occipital, spinal accessory, and phrenics. The lesion was most marked in the pneumogastrics, especially the right. This was thickly beset with tumors; the largest was ovoidal, and measured $4\frac{1}{2} \times 3$ ctms. The cardiac and œsophageal plexuses presented numerous small tumors, spheroidal or fusiform. The right sympathetic was also extensively involved. The left pneumogastric in the cervical portion was converted into a bulbed cord about as large as the little finger.

"As to the remaining spinal nerves in the extremities, they were all for the most part thickened, some extensively so, except in the foot and hands, where the change was but slight. Both sciatics, as they enter the thighs, presented themselves as immense knotted cords about 6×3 ctms., the right being slightly the larger. In the left leg all the branches of the sciatic down to the ankle were beset with larger and smaller tumors, as was the anterior crural with its branches. I counted on the left anterior crural and its branches 276 tumors, large and small. The lesion was more marked in the left leg than in the arm, though in the latter all the nerves down to the wrist were thickened and, especially above the elbow,

beset with numerous tumors. The tumors were abundant alike in the muscular and cutaneous nerves, perhaps, in general, more so in the latter. There were extensive changes in the muscles of the leg."

Dr. Pradden, unfortunately, was unable to examine any other portions of the body than those of which he furnishes a description. He promises to continue his investigations into the changes in the muscular tissue.

I was personally fortunate in being able to examine the tumors while fresh, and making use of osmic acid (one per cent.). I observed that the medullated nerves were very closely connected with the growths. Using this reagent, it could be seen that in some instances the medullated fibres passed directly through the centre of the nodules; in others merely skirted their periphery, or were expanded over them. These fibres evidently formed no considerable portion of the masses, and although it was found impracticable to decide whether they were increased in number, the impression produced by repeated examinations was that such was not the case, and that the change was in the connective substance of the sheaths. The tumors could not therefore belong to the myeline variety; nor could any considerable number of Remak's fibres be found, so that the neuromatous character of the growth was regarded as extremely doubtful. The presence of connective tissue was thought so plain, and the diagnosis of fibromata of the nerve-trunks was thought to be well proved. It is well known that most tumors of the cords are of this group. In such growths it is not uncommon for the myxomatous element to enter, and even others of the connective substance group, and this may be found to be true in this case.

Growths conforming to these gross anatomical characters have been described by Robert W. Smith, of Dublin, Townsend, and others; but one is often in doubt of the histological group to which they are to be delegated, as they are loosely described under the head of neuromata, fibrous tumors, myxomata, sarcomata, and the like. True neuromata are probably among the rarest tumors that are met with in any situation, and corroborative tests, many of the strongest kind, should be required before they are accepted as such. This case is remarkable and perhaps unique, as exhibiting extensive implication of cranial, spinal, and sympathetic nerves. The auditory and optic nerves were unaffected—a point which has always been observed. The symmetrical increase in the development of connective tissue explains, perhaps, why the symptoms were comparatively so insignificant. Thanks were due to Dr. W. H. Porter for the microscopical sections.

EXTIRPATION OF THE LARYNX AND ANTERIOR WALL OF ŒSOPHAGUS.

Dr. F. Lange presented a tumor of the larynx, with the following history: Mr. A——, of St. Louis, Mo., 74 years of age; previously of healthy condition; two years ago was first seized with periodical hoarseness, and soon after by spells of coughing, caused by small particles of food getting into the larynx during deglutition. In October, 1878, a tumor began to show itself on the upper edge of the right wing of the thyroid cartilage. On account of increasing dyspnœa, tracheotomy was performed at Chicago, in February, 1879. Since last July fluid food only could be swallowed; the patient lost much in general health and strength. His tracheal canula was not large enough to secure a sufficient amount of air, and he was much troubled by fits of dyspnœa, and even suffocation, from the passage of food into the trachea on every attempt to swallow. October, 1879, tumor had attained almost the size of an orange, was located on the upper part of the larynx touching the hyoid bone, dislocating the right carotid artery and pushing upward the base of the epiglottis, and everting it so that closure of the opening of the larynx was impossible. Deglutition grew worse rapidly, and on October 12, 1879, the operation was performed, consisting in removal of the tumor, including, with the exception of the lower part of the cricoid cartilage, the larynx, the right wing of the hyoid bone, and anterior wall of the œsophagus, which latter had, unfortunately, become involved into the disease. After three months of a very difficult and troublesome after-treatment, during which his life was in question more than once, patient left again for his home. By means of an artificial apparatus closure of the œsophagus was effected, deglutition was secured, and the patient was able to take his food without difficulty, and by means of an artificial larynx was able to articulate. Still, the apparatus was troublesome to him, and he did not care much about it. According to the last account, he was getting along tolerably well, more than four months having passed since the operation.

The tumor was essentially an extra-laryngeal one, taking its origin from the upper edge of the right wing of the thyroid cartilage, pushing downward the same, on account of the resistance of the hyoid bone, so that the supposed tracheotomy, performed formerly, had been thyrotomy, the tube passing just between the vocal cords. This explained the narrowness of the space and the difficulty in introducing the tube. The tumor had involved the mucous membrane, and especially the right false cord, and almost entirely blockaded the larynx. On the upper surface a horseshoe-like ridge could be seen, where the hyoid bone was in connection with the growth. On the right side the mass of the tumor had grown between the larynx and the œsophagus, pressing upon the latter and causing the trouble in deglutition. The epiglottis, of course, had also been removed entirely.

Dr. Lange stated that he had given a specimen of the tumor to a microscopist of this city, but that gentleman had not yet come to a conclusion regarding the nature of the growth.

Dr. Peaboby stated that he had received such a small slice of the tumor that it was impossible to discover its nature. In this connection, he took occasion to remark that it was quite important to give the whole of a tumor to a microscopist, in order that the true relations of different parts might be duly estimated. It was the microscopical examination of a growth as a whole that determined its true histological nature.

This opinion was concurred in by Drs. Satterthwaite and C. S. Bull.

Dr. G. M. Lefferts said: Having seen Dr. Lange's interesting case of extirpation of the larynx (the first operation of the kind performed in America, and the nineteenth upon record) in consultation, and, having had the pleasure of assisting him at his operation and of afterward watching the gradual process of cicatrization and final fitting of the artificial vocal apparatus, I am in a position to judge of the accuracy of his report, and to testify to the thorough surgical knowledge and manual skill which have done so much to conduct the case to its successful termination.

The chief point of interest, in cases of this class, lies in the indications for the operation; the latter is not, contrary to what has been sometimes asserted,

a difficult one to perform, and the question if whether the larynx shall be dissected out from above downward or from below upward, as insisted upon by the various operations, can well be left for decision to the pecularities which individual cases may possess. I have performed it both ways upon the cadaver, and find that it makes but little difference as far as the mere care of the operation is concerned. In Dr. Lange's case there was no room for question, as far as the indications went; a patient in hale condition, notwithstanding his sufferings, with a hard, dense tumor the size of a small orange blocking up completely the interior of the larynx, interfering with all its physiological functions, having long since necessitated the performance of tracheotomy, and now rendering deglutition, even of fluids, nearly impossible—this fact alone, according to Schüller, an overwhelming or vital indication certainly, nothing but death from starvation lay before the patient. It may be asked why was not a thyrotomy or a resection of the larynx performed instead of an extirpation? A glance at the specimen before you will clearly answer the question. When Czerny, in 1870, first devised this operation, and Billroth, in 1873, first performed it upon the living subject, it was supposed by some that in it lay a ready method of removing a larynx rendered useless for all physiological purposes by cicatricial contracture and stenosis, following syphilis, perichrondritis, from typhoid and the like, and replacing it by an artificial organ, thus overcoming the difficulties presented by this intractable class of cases; but the formidable array of deaths which have thus far followed its performance, for other causes have totally precluded any such idea, and it seems to me that we are to-day all agreed that it is alone applicable in cases of malignant or recurrent growth affecting the larynx; but even here a limitation must be made. All instances of laryngeal cancer are not proper cases for extirpation of the larynx. Have not the unfortunate results (thirteen deaths in nineteen cases) which have followed the operation sooner or later in the majority of cases so far reported been perhaps due, in great part, to an improper or hasty selection, to a non-appreciation of the true and safe indications?

The interesting question may, perhaps, be still further narrowed down. Is it ever a justifiable step to take, in even the commonest form of the disease—pharyngo-laryngeal epithelioma? It is impossible, by extirpation of the larynx alone, to eradicate the wide-spreading destruction, involving pharynx and neighboring parts as well as larynx; and Langenbeck's heroic procedure will hardly commend itself to any but the most venturesome surgeons. Can even primary laryngeal cancer, after its earlier and local stages, or when it occurs in the form of a diffuse cellular infiltration, be removed without question of recurrence. The statistics show us not. We are thus left with a single class of growth, and in this class have all the successes been made. Bottini, Foulis, Czerny, and now Lange, have extirpated for *sarcoma*, and the patients have lived. If, therefore, in the future, cases be more carefully selected, the above forms excluded, and, above all, the operation earlier performed, before the extension of the disease renders its complete removal an impossibility, I cannot question but that the results will be better. In the present stage of our knowledge, its utter condemnation in some quarters seems unreasonable. Have the other operative steps heretofore undertaken for this terrible disease shown us any better figures? Thyrotomy for the removal of malignant neoplasms of the larynx has been performed, according to Burns, some nineteen times, and in all cases, with the exception of one, was there recurrence in little over a year. Tracheotomy, it is well known, is but a palliative measure—prolonging life, it is true—but not meeting the ulterior surgical indication, and endo-laryngeal destruction of the growth has been but rarely attended with success, and then only when the small primary cancerous nodule has been dealt with. We are thus forced to an extirpation of the organ as the sole means which to-day presents a fair chance of saving life. If, however, better success is to be obtained, it must be in cases of *circumscribed* epithelial cancer; and through, as I have said, an early resort to the operation under such circumstances, will the extirpation become a much more certain procedure than the thyrotomy.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, February 5, 1880.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 8 P.M., and the minutes of the previous stated meeting were read by the Assistant Secretary, DR. W. H. KATZENBACH.

The Corresponding Secretary, DR. JOHN G. ADAMS, made a report, and also presented an excellent portrait of the late Dr. Gurdon Buck.

Dr. Selden, of Canada, and Dr. Alden, U.S.A., were introduced to the Academy, and invited to take seats upon the platform.

Twenty-six new Fellows were elected.

DR. THOMAS T. SABINE read a memorial to the legislature, relative to *vivisection*, which was unanimously adopted.

DR. ISAAC E. TAYLOR then read a paper:

1. ON FLAGELLATION, OR SPANKING OF THE CHILD'S BACK, PREVIOUS TO ITS ENTIRE DELIVERY, AS A MEANS OF PREVENTING UTERINE HEMORRHAGE; AND
2. ON FLAGELLATION OF THE ABDOMEN OF THE WOMAN AFTER DELIVERY OF THE PLACENTA, AS A SUBSTITUTE FOR THE INTRODUCTION OF THE HAND INTO THE CAVITY OF THE UTERUS.

The paper was one sent up to the Academy by resolutions adopted in the Section in Obstetrics. The author spoke, in the first place, of the physiological function of the uterus, and the direct communication between its oblique sinuses and the vena cava. Frequently not the slightest warning was given regarding the occurrence of post-partum hemorrhage, either before or after the delivery of the child or the placenta, but suddenly the woman passed into an alarming syncope from profuse loss of blood. Under such circumstances there was no safety whatever except from instantaneous uterine contraction, and it was imperative that the obstetrician should be provided with, and should be ready to use, all possible means for the safety of the patient. He should possess calmness, courage, judgment, decision, and should be prompt to act; and if not thus fortified mentally, he should never, as Lee had said, "cross the threshold of the lying-in chamber." Dr. Taylor then referred to papers on the treatment of post-partum hemorrhage, read by Drs. Wilson of Baltimore, and Penrose of Philadelphia, before the American Gynecological Society, at its annual meeting in 1878—the former recommending the use of the hand as a curette to scrape the surface from which the placenta had been detached, and the latter the introduction of common

vinegar into the cavity of the uterus, on a piece of soft sponge or rag. Both papers, however, were written with reference to treatment *after* delivery of the placenta, but the method which he offered was simple, efficient, yielded results promptly, was always at our command and at a moment's warning, and was available not only in controlling hemorrhage after the delivery of the child, but also before and after the delivery of the placenta.

The plan was first to flagellate or spank the child's back moderately, rapidly, and repeatedly, after delivery of the shoulders, permitting the breech and the extremities to remain in the vagina, and the feet in apposition with or in the cervix uteri, and allowing them to remain there fifteen or twenty minutes, or even more. Pressure over the uterus should be avoided, for it might deliver the child before the desired object was accomplished, namely, firm contraction of the uterus.

The spanking should consist of quick, not harsh blows, and should be repeated until the child was delivered.

As soon as the uterus contracted firmly, and it was determined to complete the delivery, the uterine tumor should be seized with the hand and held until the placenta was delivered, and for some time after.

After the placenta was delivered, if hemorrhage occurred, expose the abdomen, and flagellate it with a towel doubled and the ends held in the hand, the doubled end being wet in cold water—ice-water, if it was at hand. The strokes should be powerful and quickly repeated. Should uterine relaxation follow the contraction, the method might be again employed, and repeated until other means could come to the obstetrician's aid in securing a fixed contraction. The method might seem harsh to the patient and to the attendants, but there could be no procrastination or temporizing in those sudden cases of post-partum hemorrhage. The remedy was limited to *primary* hemorrhage; that is, hemorrhage occurring independently of such causes as anæmia or malaria, or heart or kidney disease, etc. It was adapted to three classes of cases: 1. Those in which the uterus was large, soft, flabby, scarcely recognizable by touch; 2. Those in which the uterus was distended with blood—perhaps was as large as at full term of pregnancy; and 3. The smaller number of cases, that class in which the hemorrhage occurred in connection with alternate contraction and relaxation of the uterus.

Relaxation of the uterus might exist without hemorrhage, and concerning it we might not be able to give any satisfactory explanation. On the other hand, hemorrhage might be profuse when the uterus was firmly contracted.

Should the cause of relaxation with hemorrhage be a portion of the placenta, and the hemorrhage continue after it had been removed, then the hand might be introduced and used as a curette, according to the suggestions made by Dr. Wilson. Valuable as that remedy might be, however—perhaps absolutely necessary in certain severe cases—great care was required, judgment and gentleness, lest permanent injury be done to the uterus, or immediate damage, such as would increase rather than diminish the gravity of the complication. For removing the placenta, he had introduced his hand into the uterus but three times during the last thirty-five years, and in a large obstetric practice, and those were cases of complete adhesion of the placenta.

Dr. Taylor then quoted from a few authors regarding the usual method of managing the uterus after delivery of the child. Special reference was made to Ingleby, who said that to retard the descent of the child in ordinary obstetric practice was highly objectionable, since it would substitute "a process of art for a process of nature," and yet the same author reports one case in which he spoke of "gradual and slow delivery of the head separating the placenta without any hemorrhage whatever," in a case which had previously been subject to flooding.

Dewees did not introduce the hand into the uterus for the purpose of arresting post-partum hemorrhage, in a practice of thirty-five years, regarding it as not only unnecessary, but pernicious. He, however, recommended rubbing the os with the fingers, but not the inner surface of the uterus.

Cazeaux also recommended titillation of the os uteri for the same purpose. Both authors, however, recommended it as a measure to be adopted after delivery of the placenta, and both were chary of introducing the hand into the cavity of the uterus; and all authorities agreed that it was only when the os was contracted, or manifested a disposition to contract, that the introduction of the hand was efficacious. Dr. Taylor then gave his explanation, somewhat at length, of the manner in which his method operated. He also referred to the use of the cold-water douche upon the exposed abdomen, stating the contraction so secured was liable to be followed by relaxation, and that the agent, when employed the second time, was not usually as efficient as at first. Reference was also made to electricity, injections of hot water. Valuable as they all were, the delay might be too great before they could be used, and the life of the woman, as a result, might be sacrificed. A judicious combination of those measures might possess special advantages, and, if at hand, was not objectionable. The histories of five cases were then briefly related.

In this connection Dr. Taylor spoke of the use of anæsthetics in obstetric practice. He did not continue their administration at the close of labor in any case, regarding their influence at that time as unfavorable. The administration of an anæsthetic in cases of feeble uterine contraction—feeble from prolonged and tiresome efforts—usually stimulated the uterus to new action, which of itself was not infrequently sufficient to complete the labor without the aid of art.

THE PRESIDENT, in placing the paper before the Academy for discussion, remarked that he had been curious, since he read its title, to know what the aim and views of the author were, and what was the character and bearing of the paper. While listening to its reading he had discovered that the scientific interest was one point, and the originality of the suggestion another. Flagellation, however, as a therapeutical resource, the author of the paper did not claim as entirely original with him; and so it was not, for it was well known that, in Eastern countries and in the early ages, flagellation was resorted to to rouse the exhausted in all cases for the performance of those duties which led to results treated of in the paper. In harems, flagellation for the purpose of obtaining a corresponding response had been well attested; so flagellation was not an original suggestion as a therapeutic resource. But in the paper before the Academy flagellation had been considered with special reference to the saving of the life of the mother. He thought, however, that it should not be so restricted, but that it should also be referred to as an agent for saving the life of the child. For that purpose it was an agent that had been employed many years ago. Solomon recommended almost the same procedure for the sake of the child, as the author of the paper had recommended

for the sake of the mother; for, from his saying, "Spare the rod and spoil the child," the inference might be drawn that the use of the rod was for the sake of saving the child. Again, Solomon said, "He that spareth his rod hateth his son; but he that loveth him chasteneth him betimes;" also, "Chasten thy son while there is hope, and let not thy soul spare for his crying;" in which it seemed the therapeutics was not to be lost sight of, notwithstanding the crying. Now, it was not known that Solomon, while he seemed familiar with the therapeutical power of flagellation, ever was an obstetric practitioner, although he was credited with having contributed largely to obstetric practice.

Dr. W. R. Gillette regarded Dr. Taylor's contribution as a valuable addition to our resources for arresting uterine hemorrhage; and although, while an interne in Bellevue Hospital, he had seen the flagellation bring about contraction promptly in Dr. Taylor's hands, he had not, in two instances since then, been able to obtain the same satisfactory results. The principle was to excite the contractility of the uterus, but there were certain cases in which it was impossible to arouse it by the use of any stimulant. Nevertheless, it was a measure worthy of trial.

With regard to flagellating the child before complete delivery, it was an idea of which he had not heard, yet he could well see that it must necessarily have a rather limited application. We were not always able to prevent the complete birth of the child after the head and shoulders had been expelled. He had never attempted to retard a birth in the manner described, but certainly he should think the method could be adopted only in a limited number of cases, if under any circumstances it could be made available. He did not regard it as evidence that a woman would have post-partum hemorrhage simply because she had had such hemorrhage on occasions previously. In his own experience he had not met with uterine hemorrhage after delivery in cases in which he was expecting it. To be sure, he had been prompt in applying the ordinary precautionary measures, of seizing the uterus immediately that the head began to escape from the vulva, and keeping firm hold of it until the application of the binder. He also referred to putting the child to the breast as a means of exciting uterine contraction, it having served a good purpose in one case in which post-partum was threatened.

Dr. Montrose A. Pallen remarked that the measure which Dr. Taylor had brought forward for arresting partum and post-partum hemorrhage opened the whole field of the treatment of partum, ante-partum, and post-partum hemorrhage—a subject fraught with very great interest and importance.

He divided hemorrhages into those the result of faulty implantation of the placenta; those of partial separation of the placenta; those of laceration of the vulva, fourchette, perineum, or cervix uteri; those of inertia of the uterus; and those the result of systemic causes, such as renal and hepatic diseases, etc. In the treatment of hemorrhage we must of necessity seek for the cause, and if possible remove it. He was disposed to believe that when tedious labor occurred, in cases in which the pelvis and the distribution of the soft parts were normal, it was, in a majority of instances, dependent upon faulty implantation of the placenta. In a normal uterus at full term, with the placenta implanted in the central zone of the fundus, the uterine contractions were equable, and the force line, of necessity, was directly toward the os interum. If, however, the placenta be implanted upon one or other side, there was, upon the side opposite to the place of implantation, an increased quantity of force, and the direction from the fundus to the os interum was sigmoid, and several hours necessarily elapsed before the head engaged properly and passed into the excavation. Just in proportion as the placenta was implanted to one or the other side of the fundus, did prolonged labor occur, and just in proportion to the occurrence of prolonged labor was the woman prone to have hemorrhage. Under those circumstances, then, we must enter into the philosophy of the cause of the hemorrhage before we took into consideration the therapeutics. Direct irritation of the uterine structure by means of electricity, in cases of complete inertia, failure of the uterus to contract because the muscular fibre did not receive its proper supply of nutrient fluid, would, perhaps, be useless. Probably flagellation would be useless. Probably titillation of the lining membrane of the cavity of the uterus would be useless, and hot water would probably fail. But if the woman could be stimulated—if the waste, in a measure, could be repaired—if the nervous centres could be so aroused as to give rise to tonic contraction of uterine tissue, the woman's life might be saved, and for that purpose *nitrite of amyl* was the best known agent that could be employed. We must beget, in such cases, a hyperæmia of the spinal centres in order that the uterine fibres might maintain a tonic contraction.

Again, if the placenta was retained, the supposition was that the part from which it finally came was not in the tonic, sthenic condition, the uterine structure was ordinarily at full term, but that it was in a sodden condition, or at that point there might be a deficiency of uterine structure to contract over the vessels, which were patulous and gaping. When hemorrhage occurred under such circumstances, injections of iron or of iodine would be beneficial. The uterus contracted well, except at one point, and the injections would produce styptic thrombosis at that point, and thus arrest the hemorrhage.

Again, when we met with persistent hemorrhage, and there was firm contraction of the uterine body, we should examine the vulva, and, finding no blood coming from the fourchette or perineum, we should examine the cervix, and, finding it torn, the proper method to check the hemorrhage would be by means of styptic cotton held in place by a light tampon. That was the only form of post-partum in which a tampon was allowable, and it should be removed within thirty-six or forty-eight hours, and the parts thoroughly irrigated with carbolized water. He had, under certain circumstances, in that form of post-partum hemorrhage, been compelled to stitch the lacerated cervix in order to arrest the bleeding. After that form of laceration, septic fever very frequently arose, which had been confounded with the general so-called puerperal fever, but required only such treatment as was applicable to all wounds followed by surgical fever.

Again, hemorrhage might be due to œdema of uterine tissue, such as was found generally in the tissues of the body in connection with some cases of albuminuria. In that class of cases every measure might fail.

He thought that the recurrence of hemorrhage in cases in which the woman had, in previous confinements, suffered from flooding was in most instances due to the fact that in one labor the cervix was lacerated, and again lacerated during the next.

There being no further business, the Academy adjourned.

Stated Meeting, February 19, 1880.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 8.15 P.M., and the minutes of the last stated meeting were read by the Secretary, Dr. Edwin F. Ward. The Corresponding Secretary, Dr. John G. Adams, reported the reception of a volume of the Transactions of the Medical Society of the State of New York.

A report from the Section on Surgery announced that Dr. Stephen Smith had been elected chairman, and Dr. A. B. De Luna secretary, for the ensuing year.

NIGHT MEDICAL SERVICE.

A report from the Section on Obstetrics announced that Dr. Salvatore Caro had been elected chairman, and Dr. Henry E. Crampton secretary, for the ensuing year.

The President introduced to the Academy Drs. Nachtel of Paris, France, G. W. Rohr of Rockford, Ill., and Dr. Griffin of Baltimore, and invited them to seats upon the platform.

The first paper of the evening was by Dr. Henri Nachtel, of Paris, and entitled "Night Medical Service." It was read by Dr. Gaspar Griswold, of New York. [See MEDICAL RECORD, pp. 229.]

THE PRESIDENT—The profession always has been and always will be the first to inaugurate any movement for the benefit of public health, and I think I may undertake to say that the public are now beginning to fully appreciate that fact. It is a matter of interest both to the profession and to the public, that every paper of this character should receive full consideration, and no doubt it will be accepted as worthy of the most earnest and careful study. I will call upon Dr. Gouley to open the discussion.

DR. J. W. S. GOULEY—Mr. President: The paper is sufficiently plain, as far as it gives the plan adopted in Paris and several of the capital cities of the Old World, and it seems to me that Dr. Passant's plan is so good that we should, at an early period, take steps to secure its adoption in this city. It would be a benefit not only to the public, but to the profession—at least in a statistical point of view. Again, there is nothing in its principle for the aggrandizement of any individual. It is for the benefit of the whole people and the whole profession. As already stated, several hundred in Paris have expressed their willingness to attend to any patient during the night. And it is highly probable that the same kind of night service can be secured here. I therefore offer the following resolutions with regard to this subject:

Resolved, That the thanks of this Academy be tendered to Dr. Nachtel for calling our attention to the necessity of more prompt and efficient medical succor in cases of sudden illness occurring at night, and of injury received in the streets.

Resolved, That Dr. Nachtel's paper be referred to a special committee of three academicians, to be appointed by the chair, and that this committee be instructed to investigate the question of "Night Medical Service" as it now exists in Europe, and report, at an early date, as to its practibility in the city of New York.

The President appointed as the committee called for by the resolution, Drs. J. W. S. Gouley, E. G. Janeway, and E. M. Bronson, and on motion the President's name was added.

DR. GEO. F. FRENCH, formerly of Portland, Me., has removed to Minneapolis, Minn.

Correspondence.

THE EYE-PARASITE—DRACUNCULUS LOA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The eye-parasite, which has received the names dracunculus loa and filaria loa, recently came under my observation at this place. The circumstances were as follows:

Native young man presented himself, complaining of a "sick eye." I examined the organ and discovered a white worm coiled up. Its situation was on the iris, beneath the sclera; but it was not at all confined, being capable of moving about and even obstructing vision when in front of the pupil. It was constantly in motion. The eye itself was bloodshot and inflamed, while the lachrymal discharge was profuse. I succeeded in extricating it in the following manner: holding the eyelids firmly open, the point of the small blade of an eye-knife was inserted between the sclera and iris, care being taken that one end of the worm was between the blade and sclera. The handle of the knife was then depressed so that the point would, in being carefully withdrawn, cause the end of the parasite to protrude through the opening in the sclera. This accomplished, it was easily seized and removed with a pair of ordinary dressing-forceps.

The filaria loa is, I think, quite rare, or at least is seldom taken out entire. If I am rightly informed, only one specimen has reached the United States; but the French are conversant with it. It *generally* selects the lower eyelid for its first appearance, though it is often found in the pinguis. If undisturbed it causes intense itching and stinging pain in the part occupied by it, which symptoms disappear in two or three days, caused, no doubt, by its death. It is not considered dangerous or even serious.

The specimen sent to America by one of the missionaries here was not entire, having been torn in the operation of extraction. The one in my possession is, I think, complete. I have it in a fifteen per cent. solution of alcohol, and will be glad to forward it for examination to any oculist who is sufficiently interested to study it thoroughly.

Very truly yours,
H. M. BACHELER, M.D.

AMERICAN PRESBYTERIAN MISSION,
GABOON, W. COAST OF AFRICA, Dec. 15, 1879.

THAT "QUESTION OF PRIORITY OF INVENTION" OF A HERNIAL SYRINGE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Dr. Wm. S. Janney, by his letter in the RECORD of the 21st inst., leads your readers to infer that he is the inventor of a hernial syringe, and that I have published the same as my own. I think, however, a brief review of the facts will place this matter in quite a different light. First, I wish to state, positively and emphatically, that I had no knowledge of Dr. Janney's syringe, or that he or any other person had ever constructed one resembling, in any particular, that which I described in the MEDICAL RECORD of the 7th inst. In that description I made no claim to originality. I shall now define my claims, viz.: a combination of prin-

ciples, most of which I believe to have been used before for other purposes, resulting in a hernial syringe. This combination is *absolutely my own*. My order for this syringe was given to Messrs. Stohlmann & Pfarre, 107 East Twenty-eighth street, about October 25th. I was led to its construction in the following manner: To Dr. George F. Shrady am I indebted for first suggesting that the point of the needle be protected. In discussing this matter with Dr. W. H. Philips of Ohio, that gentleman informed me that he had seen an aspirator-needle of peculiar design, the name of which he could not recall, which he believed would be a good principle upon which to make the hernial needle. That evening I chanced to find, in the possession of my friend, Dr. H. T. Hanks, the needle spoken of by Dr. Philips. I borrowed it and took it to the instrument-makers as a model. With the exception that it is smaller, the trocar-needle shown with my hernial syringe is an exact counterpart of this aspirator-needle, the originator of which I did not at that time know.

If I read Dr. Janney's letter correctly, he, in reality, only claims to be the originator of the trocar-needle, "an instrument similar in every respect as to the trocar arrangement;" although later he claims the whole instrument by saying, "This instrument that Dr. De Garmo represents in the cut is the *counterpart* of the one I have used. . . . I was very much surprised to see *my** instrument described."

If Dr. Janney's claim of priority is on the trocar-needle only, as I am confident it is, I would suggest to him that he give credit to whom it is due for the valuable principle involved in its construction: Dr. Simon Fitch, St. John, N. B., who introduced it first as the "dome-trocar," before the N. Y. County Medical Society, early in 1875.—*N. Y. Medical Journal*, April, 1875. And again, as "A Handy Aspirator."—*N. Y. Medical Journal*, November, 1877, p. 497. See also Tiemann & Co.'s Catalogue, part 1. p. 134; part 3, p. 102. Reynder's Catalogue, p. 89.

Very respectfully yours,
W. B. De Garmo, M.D.

116 East Thirtieth Street.

WIND SPASM.

To the Editor of The Medical Record.

Sir:—In your issue of June 28, 1879, vol. xv., No. 26, I find an article under the above caption, by Wm. J. Morton, M.D., and not having seen an account of a similar case either before or since, I am led to contribute one which I think is of the same nature, and which may not be without some interest to the profession.

In the fall of 1877, while attending a lady in this city for a slight indisposition, she informed me that her daughter was troubled with frequent eructations of wind, and wished to know if anything could be done to relieve her. Upon further inquiry, I found that she had been troubled with these spells, as she called them, for over six years, and that lately they had become so frequent and severe as to confine her to the house, not daring to go into society for fear they would come on, as they usually did, upon the least excitement. Her health was breaking down, she was losing flesh, had no appetite, and she feared that, unless a change could be brought about, some local disease might manifest itself, and she feared the result.

The young lady, on being questioned, expressed herself as follows (I use her own words, as far as I remember them): "When these spells are coming on, I feel a sense of fulness which begins just below the pit of my stomach, and gradually goes all over me, even to the tip-end of my fingers and toes, until I feel literally as though I should burst, and I can get no relief, either from loosing my clothing or change of position, until at last I commence to belch up large quantities of gas or wind, which will continue to come up sometimes for an hour or more, and which always leaves me in a weak and exhausted condition." She also informed me that it made no difference as to the kind or quantity of food she ate, and that they would come on sometimes just before meals, at other times just after, then again not for some hours after eating, and that they would sometimes occur during the night.

Having been under the care of several physicians, who had treated her for what they thought to be one of the complicated forms of dyspepsia, I thought myself that it might be one of the severer forms of the nervous type, and therefore treated her with the more common remedies, finally trying almost everything in the pharmacopœia that was suggested for such cases, but with no better success than my predecessors. At last, from my reading and observation of the case, I was led to try the sulphite of sodium, which I used as follows:

℞. Sodæ sulphis. ..... ʒ ix.
Aq. menth. pip. ..... ʒ iv.

S. One teaspoonful in half a wineglass of water, after eating.

This my patient took faithfully for two months. During the first two weeks she had four attacks, and there seemed to be no improvement; but after that time she made a steady and gradual improvement, the number and severity of the spasms diminished, she gained rapidly in health and spirits, and since the end of the eight weeks, although for a time after she continued to take the medicine every other day and in smaller doses, she has been entirely free from them.

Two reasons have prompted me to contribute this case to the readers of the Medical Record:

1st. As Dr. Morton suggests in his article, the rarity of such cases.

2d. The space of time which has elapsed (now over two years) since she left off taking the medicine, during which time, as she informed me a few days ago, she has not had a single attack, goes to prove, at least in this case, the efficacy of the sulphite of sodium.

In closing I will say that I lay no claim to a discovery, but am satisfied if, in reading this, some one shall be benefited or attain similar results by its use.

Yours respectfully,
D. N. Patterson, M.D.

Lowell, Mass., Feb. 12, 1880.

* Italics are mine.

Examinations for Entrance to the Medical Corps of the Navy.—A board of naval surgeons will meet at Philadelphia on March 1st next, for the examination of candidates for the position of assistant surgeon in the navy. The officers so far detailed are Medical Director Edward Shippen and Surgeon Thomas N. Penrose.

LUNACY REFORM.

To the Editor of The Medical Record.

SIR,—The undersigned have had presented to the State Legislature a bill for the creation of a Lunacy Commission. An analysis of it has already appeared in your columns. It is desirable to have the approval and cooperation of the medical profession in the efforts to secure the passage of the measure, and we beg to present briefly some of the reasons to be urged in its support.

There are a number of facts relating to the care of the insane which are quite indisputably settled. Among these are

1. The rapid increase of the insane of the State, amounting nearly to one thousand a year. This is a greater increase, proportionately, than that of the population. Such a condition of affairs will soon compel the most careful study of the prevention, treatment, and economical care of the insane.

2. In many counties there are no arrangements for the early treatment of the acute insane, the majority of this class being not treated, but merely boarded.

3. A large proportion of the State insane are cared for in inadequate county asylums or poorhouses.

4. Apart from these facts, there are a number of points that urgently need full investigation. Among these are: *a*, the proper size of the asylums; *b*, the separation of the acute from the chronic insane; *c*, the proper mode of appointing officials; *d*, how to secure more medical assistance, and more scientific and clinical study in the asylums; *e*, the best medical treatment for the insane.

We consider it very clear that a proper answer to these questions would lead to a greatly improved system of asylum management.

5. There is absolutely no reason to suppose that if the matter is let alone, as is recommended by some, a reform will work itself out eventually.

6. The insane form a class which, above all others, needs to have a constant supervision, and an authoritative body to keep it in contact with the outside world. On this latter ground lunacy commissions have been founded and have proved very successful. The bill drawn up by us creates such a commission. It will devote its time to the supervision of the insane asylums of the State, and to a study of the problems in the care of the insane. It will have all the powers of the present commissioner of lunacy, with more independence, more working members, greater opportunities, and more executive machinery at its command. The bill introduces no innovations or experiments; it *adds nothing to the present expense* of the State government, and it does not burden the Executive with a new bureau.

Therefore we urge its endorsement by the public and the medical profession.

(Signed)

WM. C. CHURCH.
D. B. EATON.
C. E. WHITEHEAD.
GEO. M. BEARD.
E. C. SEGUIN.
A. H. GIBBONS.
A. A. CHEVALLIER.

A NEW DISEASE.—A new fever has been discovered to occur in Japan. It is a miasmatic, non-contagious continued fever, resembling anthrax somewhat in its lesions.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 15 to February 21, 1880

HALL, J. D., Captain and Asst. Surgeon. Relieved from duty in Department of Texas, and to report to Commanding General, Department of Dakota, for assignment to duty. S. O. 35, A. G. O., February 13, 1880.

DRS. GEO. P. MCCHERRY and EDW. D. SMITH, of New York city, RICHARD C. NEWTON, of New York, and JNO. J. COCHRAN, of Massachusetts, having passed a successful examination before the Army Medical Board now in session in New York City—were, February 18, 1880, confirmed by the Senate as assistant surgeons, United States Army, with the rank of first lieutenant.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 21, 1880.

Week Ending	Typhus Fever	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Feb. 14, 1880...	0	4	31	2	212	41	0	0
Feb. 21, 1880...	0	14	35	1	183	38	0	0

A MEMORIAL FROM VARIOUS MEDICAL SOCIETIES AND ASSOCIATIONS.

To the Honorable the Legislature of the State of New York:

Whereas, There is now before the Legislature a bill which is intended to prohibit, under the name of vivisection, the employment of experiments on animals for medical and scientific investigations; and

Whereas, Such prohibition would have a most injurious effect upon the cultivation and improvement of medical knowledge, and would be an obstruction to scientific discovery, and consequently a practical disaster to the interests of humanity; therefore,

We, the members of the New York Academy of Medicine; of the Medical Society of the County of New York; of the New York Medical and Surgical Society; of the New York Pathological Society; of the Albany Academy of Medicine; of the Buffalo Medical Association; of the Rochester Medical Society; of the Brooklyn Anatomical and Surgical Society; of the Elmira Academy of Medicine; and of the Medical Society of the State of New York, representing all the county medical societies in the State, beg leave respectfully to express our strenuous opposition to the proposed enactment, as contrary to the interests of the State and an enlightened policy of legislation.

Experiments upon animals have the same value for investigation and discovery in medicine as those in physics and chemistry for the corresponding branches of natural science; they have been, in

point of fact, a most valuable aid in medical research, and have often led to important discoveries upon which depends our knowledge of the human body in health and disease; they have made us acquainted with the functions of the internal organs, and the action of their different parts; they have brought to light a variety of methods and procedures for saving or prolonging life; they have been instrumental in the modification and improvement of important surgical operations; they have detected the cause and mode of transmission of contagious and infectious disorders; and they have been the means of introducing new and useful applications of medicinal remedies. They are not performed in such a way as to cause the infliction of unnecessary physical pain, suffering, or death upon the brute creation, but with due regard to its alleviation or prevention by every appropriate means. Their results, in increased knowledge of the living body, and facilities for its successful treatment and cure, in veterinary medicine, are of benefit to great numbers of the domestic animals, and are therefore of importance in increasing and preserving the animal wealth of the State.

The clause in the existing law, which recognizes the propriety and usefulness of such experiments, and expressly protects them from interference, was adopted by the Legislature in the session of 1867, after full and deliberate consideration; we regard it as a prudent, just, and humane legal provision; we offer our earnest protest against the present bill, which is intended to nullify its operation; and we confidently hope that no such unwise enactment will receive the countenance of the Legislature of the State of New York.

(Signed)

The New York Academy of Medicine:
Fordyce Barker, M.D., LL.D., President.
Edwin F. Ward, M.D., Secretary.

Medical Society of the County of New York:
A. E. M. Purdy, M.D., President.
F. A. Castle, M.D., Secretary.

New York Medical and Surgical Society:
C. R. Agnew, M.D., President.
A. B. Ball, M.D., Secretary.

New York Pathological Society:
Thomas E. Satterthwaite, M.D., Pres.
George F. Shrady, M.D., Secretary.

Albany Academy of Medicine:
B. U. Steenberg, M.D., President.
T. B. Van Alstyne, M.D., Secretary.

Buffalo Medical Association:
Lucien Howe, M.D., President.
Joseph Fowler, M.D., Secretary.

Rochester Medical Society:
William S. Ely, M.D., President.
Porter Farley, M.D., Secretary.

Brooklyn Anatomical and Surgical Society:
Lewis S. Pilcher, M.D., President.
Geo. R. Fowler, M.D., Secretary.

Elmira Academy of Medicine:
P. H. Flood, M.D., President.
H. D. Wey, M.D., Secretary.

Medical Society of the State of New York:
Henry D. Didama, M.D., President.
Wm. Manlius Smith, M.D., Secretary.

To the Honorable the Legislature of the State of New York:

The Faculty of the College of Physicians and Surgeons, Medical Department of Columbia College; of the University of the City of New York, Medical Department; of the Bellevue Hospital Medical College; of the Albany Medical College; of the Medical Department of the University of Buffalo; of the Long Island College Hospital; and of the College of Medicine, Medical Department of Syracuse University, having learned with regret that a bill has been presented to the Legislature, having for its object to prevent experiments upon animals for medical and scientific purposes, respectfully represent to your honorable body:

That the usefulness and value of these experiments in the study and improvement of medical science are established by the united experience and testimony of the medical profession; that they are of great importance in the teaching and demonstration of facts which lie at the basis of medical knowledge; that to interdict their employment would be, in our opinion, to obstruct and cripple medical instruction by depriving it of a valuable aid and by diminishing the means for imparting necessary information, and that it would consequently deteriorate the quality of medical education and the future efficiency of medical and surgical practice.

For these reasons we would express our strong desire that the present law, by which these experiments are duly protected, should be retained in full force and effect, and that no other should be enacted to interfere with them.

(Signed)

College of Physicians and Surgeons, Medical Department of Columbia College:
A. Clark, M.D., President.
John G. Curtis, M.D., Secretary.

University of the City of New York, Medical Department:
Alfred C. Post, M.D., LL.D., Pres.
Charles Inslee Pardee, M.D., Dean.

Bellevue Hospital Medical College:
Isaac E. Taylor, M.D., President.
Austin Flint, Jr., M.D., Secretary.

Albany Medical College:
E. Nott Potter, M.D., LL.D., Pres.
Thomas Hun, M.D., Dean.

University of Buffalo, Medical Department:
James P. White, M.D., President.
Charles Cary, M.D., Secretary.

Long Island College Hospital:
Theodore L. Mason, M.D., President.
Samuel G. Armor, M.D., Dean.

College of Medicine, Medical Department of Syracuse University:
Frederick Hyde, M.D., Dean.
Wm. T. Plant, M.D., Registrar.

Alumni Dinner of the Medical Department of the University of the City of New York.—The ninth annual dinner of the Alumni Association of the Medical Department of the City of New York took place at Delmonico's, February 19, 1880, and was, in every respect, a successful affair. One hundred and twenty-five guests were present. The tables were tastefully dressed, and the bill of fare was ample and varied. A band discoursed appropriate music during the gastronomic performances. The following were the toasts, with their respective respondents:

The University of the City of New York, by Chancellor Crosby, D.D., LL.D. The Council, by Hon. John E Parsons, Esq. Our Alumni, by George K. Smith, M.D. The Medical Department, by Alfred L. Loomis, M.D. Our Sister Colleges, by F. N. Otis, M.D., and Lewis A. Sayre, M.D. The Pulpit, by

Rev. Chas. D. W. Bridgman, D.D. The Bar, by Hon. William Walter Phelps, Esq. The Press, by John Foord, Esq.

The President, Dr. D. B. St. John Roosa, occupied the chair, and, after a short address, introduced in a tasteful and humorous manner the various speakers.

The following officers were elected for the ensuing year:

For President, D. B. St. John Roosa (re-elected). *For Vice-Presidents*: Drs. William A. Hammond, John B. Dickson, J. J. Peterson, J. W. S. Gouley, W. E. Ford, Geo. K. Smith. *For Secretary*, Dr. Fred'k R. S. Drake. *For Treasurer*, C. Dixon Varley. *Executive Committee*: Stephen J. Clark, F. Le Roy Satterlee, A. E. Macdonald, Edward L. Parker, Andrew Otterson, R. A. Witthaus, L. Goldschmidt, Newton M. Schaffer, J. H. Hobart Burge, H. R. Conrad, R. A. Murray, B. D. Carpenter.

The Negro Thomas: Singular Control over Muscular Movements.—Dr. A. B. Miles gives an account, in the *N. O. Medical and Surgical Journal*, of the performances of a negro now exhibiting himself in New Orleans. The negro is a very muscular fellow. He claims to be without a diaphragm, and that his heart is movable. His great feat is the following: he lies on his back and stops breathing; the pulse disappears at the wrist, and the heart-beat apparently disappears from its normal position. A rhythmical pulsation at the same time appears in the right or left inguinal region, and this the negro claims to be his heart.

The explanation lies in the fact that the performer has acquired perfect and independent control of the respiratory and abdominal muscles. He takes a long breath, then suspends costal and abdominal breathing, at the same time exerts a slight inhalatory force over the heart, making its pulsations fainter. By strongly contracting the muscles of his forearm he draws the bicipital fascia tightly over the brachial artery, and thus stops the radial pulse. While in this state, which lasts but a minute, he causes pulsatile contractions of the abdominal muscles in the inguinal region. A pulsating tumor is formed, which he asserts to be the heart.

Prize Essays on Adulteration of Food.—In accordance with a resolution of the National Board of Trade, three prizes have been offered by that body for the best acts, accompanied by an essay, designed to prevent injurious adulteration, and regulate the sale of food and drink without imposing unnecessary burdens upon commerce. The essays must cover the general subject of adulterations, their effects, the best remedy, and an explanation of any legislation proposed. They must be sent before November 5, 1880, to the editor of the *Sanitary Engineer*. The Committee of Award is composed of Dr. J. S. Billings, Prof. Charles F. Chandler, Hon. B. Williamson, A. H. Hardy, and J. A. Gano. The amount of the prizes is $500, $300, and $200.

Laparotomy for Intussusception.—Dr. D. Pyle reports, in the *Nashville Journal of Medicine and Surgery*, a case of intussusception where laparotomy was performed; on the fifth day the patient recovered.

Death of J. Lockhart Clarke.—Dr. Lockhart Clarke died of phthisis on the 25th of January last. He was born in 1817, received his medical education at Guy's and St. Thomas's Hospital, and subsequently entered the practice of medicine at Pimlico. While engaged in general practice, he carried on the scientific studies and investigations which have given him a reputation and authority in matters connected with the nervous system, all over the world. He received a number of honors, being a Fellow of the Royal Society, and Physician to the Hospital for Epilepsy and Paralysis. As a practitioner, he never gained any great measure of success, but his scientific labors covered a wide field, and were marked by an originality and conscientiousness which did not fail to secure appreciation.

The Metric System and Microscopy.—At the annual address by the President of the American Society of Microscopists, Mr R. H. Ward, the adoption of the metric system was urged.

Dr. Henry M. Bullitt died at his residence, in Louisville, February 4th. He was largely instrumental in founding the Kentucky School of Medicine in 1850, and the Louisville Medical College in 1870.

The Late Professor Parkes on Tobacco-Smoking.—Dr. Parkes, at the request of Dr. Pratt, wrote a letter on the above subject, which has recently appeared in *The Lancet*. He says: "In conclusion, I confess myself quite uncertain. I can find nothing like good evidence in books; too often a foregone conclusion, without any evidence to back it, is given. I think we must decidedly admit injury from excess; from moderate use, I can see no harm, except it may be in youth."

Dr. Parkes refers to the fact that, while serving in Burmah, he used to see the Burmese women walking along the streets smoking a cigar, and carrying a child two or three years old, who also smoked his little cigar with the greatest gravity. Yet it was claimed by these people that tobacco never harmed them at all.

Recent investigations by Dr. Decaigne, of Paris, show that tobacco-smoking is quite injurious, to French women at least.

The Alienist and Neurologist is a quarterly journal, edited in St. Louis by Dr C. H. Hughes. It is intended that the journal shall occupy the peculiar province of furnishing the general practitioner with whatever is new and practical in matters relating to neurology and the allied sciences. The contents of the first number, and the list of eminent collaborators engaged, give promise of a very useful journal.

Books Received.

Sore Throat: Its Nature, Varieties, and Treatment etc. By Prosser James, M.D. Fourth edition. Philadelphia: Lindsay & Blakiston. 1880.

The Hypodermic Injection of Morphia: Its History, Advantages, and Dangers. By H. H. Kane M.D. New York: Chas. L. Bermingham & Co. 1880.

Answers to Correspondents.

Constant Reader, Richmond, Va.—Does the possession of a *medical diploma* by a man in easy circumstances, and who has *not* nor never has been a *practitioner* of medicine, entitle him to gratuitous medical attendance? Is it not the *duty* of the profession to charge such men for medical services, and collect the same as they would bills against others?

[Such a patient should certainly pay for medical services at the usual rates charged to persons of his means.—Ed.]

Original Lectures.

INNOCUOUSNESS OF CERTAIN HEART LESIONS—ACUTE ARTICULAR RHEUMATISM—SALICYLIC ACID AND ALKALIES.

A Clinical Lecture Delivered in Bellevue Hospital,

By AUSTIN FLINT, M.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE, AND OF CLINICAL MEDICINE IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

(Reported for The Medical Record.)

Gentlemen:—When this man was admitted to the hospital he had general dropsy, cardiac hypertrophy with murmur, and pallor, but no dyspnœa, cyanosis, nor suffusion of countenance. There was no evidence of renal affection. The general dropsy was of cardiac origin. It has disappeared under the use of half-ounce doses of the infusion of digitalis administered every three hours. And we may now ask ourselves, what is the explanation of this man's good condition, with hypertrophy and valvular disease of the heart? When we read his history, we find the explanation in certain facts, which go to show that there is not enough cardiac disease to produce the dropsy; but that certain accessory circumstances, taken in connection with the cardiac lesions, produced it, and that these accessory circumstances being removed, the cardiac lesions alone remaining, the dropsy has disappeared. I think this case will prove a very useful one in illustrating what I wish to impress—namely, that certain heart lesions are so well tolerated that the patient makes no complaint of symptoms having reference to the heart, provided we can control all accessory circumstances which, added to the cardiac affection, produce certain effects, such as dyspnœa, dropsy, etc. That is the practical point which this case exemplifies. Naturally, an unfavorable prognosis is usually given in such cases as this.

Now, let us obtain the physical signs relating to the heart. The apex-beat can be felt in the sixth intercostal space, an inch and a half to the left of the mammary line, and there is a corresponding increase in the area of cardiac dulness. There is a murmur which begins after the second sound, and ends abruptly with the first, and is limited to a circumscribed space around the apex of the heart—a presystolic, or mitral direct, or mitral obstructive murmur. There is no other murmur. In this case, then, a certain degree of mitral obstruction has led to enlargement of the heart, and that hypertrophy and valvular lesion are borne by the patient perfectly well when in good general condition, but not when in the bad general condition to which his history refers; that is, he was anæmic, felt weak, was poorly nourished, and general dropsy, to a considerable extent, developed. But the repose of the hospital and the regular nourishment which he has received, and the digitalis—for he had a feeble action of the heart, just that condition which furnished the indication for the use of that drug, without salines, without alcoholics—apparently produced free secretion from the kidneys, which undoubtedly tended to cure the dropsical affection, and whatever of serious trouble proceeded from the cardiac disease.

I will now read the history of the case, and it will at once become apparent what the accessory circumstances were which contributed to the development of the condition which he was in when he entered the hospital.

He is twenty-four years of age, and a moulder by occupation. He says he never had rheumatism. I have had occasion to observe this particular murmur many times in patients who have never had rheumatism. He has been a moderate drinker for several years, but during the three months immediately preceding the development of the general dropsy, being out of employment, he went on "daily sprees," and was exposed to cold and all the vicissitudes incident to such a career. In that fact we find sufficient reason why a young man of this age should become sadly depreciated in vital force; and in it also we find the etiology of the factors of the condition associated with the cardiac disease.

The valuable practical lesson to be learned from this case is this: the danger from enlargement of the heart with mitral obstruction is estimated beyond the importance of those lesions. If this man has sufficient sense to enable him to appreciate the importance of regular habits of life, will abstain from the use of alcoholics, and do such work as he can do with comfort, that affection of the heart may be of service to him. The lesson is, that the cardiac affection is well borne, and may continue to be well borne indefinitely, if the associated circumstances do not produce an impoverished condition of the general system.

ACUTE ARTICULAR RHEUMATISM—THE ALKALINE TREATMENT AND THE TREATMENT BY THE USE OF SALICYLIC ACID—CARDIAC COMPLICATION.

Case II.—James C——, an Italian laborer, æt. 30, was admitted to the hospital January 23d. His mother died of causes unknown to him. He has five brothers living and healthy. His habits are good, and he has always enjoyed good health until three years ago, when he had an attack of rheumatism attended with great pain in the knees and feet, and the joints of both lower extremities were red, swollen, and hot. It was seven months before he fully recovered from this attack, and to his knowledge no cardiac lesion was developed at that time. On January 7th he began to suffer from pain in the right shoulder, wrist, and thigh.

Symptoms relating to the joints, such as were noticed in the previous attack, again developed. On January 17th he began to suffer from an "uneasiness" in the cardiac region, most severe at about the middle of the sternum. A physical examination revealed a mitral systolic murmur, soft and blowing in quality, and not conveyed into the carotids; and to the left of the nipple a pericardial friction-sound was heard. Salicylic acid was given every three hours in twenty-grain doses. Opium was administered in such doses as were necessary to relieve the pain and give the patient rest.

This case is interesting from the fact that there has been only one attack prior to this, and that we have no history of cardiac complication occurring at the time of his previous sickness. It is also interesting from the fact that he is going through his present cardiac complication with but little inconvenience, and with the effusion of so slight a quantity of fluid in the pericardium. In some cases the only evidence of pericarditis we have is the friction-sound, but it does not necessarily imply effusion of fluid. The dulness on percussion in the præcordial region is

most marked in the fifth intercostal space, to the right of the sternum. Now, to distinguish between pericardial dulness over an effusion of liquid, and enlargement of the heart, is an important point. It is done by physical signs. In enlargement of the heart the enlarged area of dulness is chiefly to the left of the sternum; it extends to the right of the sternum, but little beyond the normal situation of the right border of the heart. At the lowest point of this area, on the left side, the apex-beat is felt, or the first sound has its maximum at that point. On the other hand, the enlarged area of dulness from pericardial effusion extends more or less to the right of the sternum; the apex-beat, if felt, is above the lowest point of this area; the heart-sounds are distant, and the first sound is feeble, short, and valvular.

SALICYLIC ACID AS AN ANTI-RHEUMATIC REMEDY.

But to return to our clinical history: there is an important point in practical medicine to which I wish to direct your attention, and it consists in the use of salicylic acid as an anti-rheumatic remedy.

It seems to me that it should not supersede the alkaline treatment which has been employed to diminish the liability to cardiac complication. It has not as yet been proved that salicylic acid has any effect in the way of preventing cardiac complications except by way of shortening the duration of the rheumatic fever. I have had occasion to observe several cases of pericarditis occurring in the course of cases of articular rheumatism under treatment by the use of salicylic acid exclusively.

Because a remedy has been found that apparently causes the disease to abort occasionally, or, if not that, shortens its duration, we are not to relinquish the accepted alkaline treatment, but should carry it to its full extent as we have been accustomed to do heretofore. The alkaline treatment does not exert a marked effect upon the duration of the disease; but the weight of evidence showing that it diminishes the liability to pericarditis and endocarditis is overwhelming. Fortunately, the two plans of treatment do not conflict with each other.

ACUTE ARTICULAR RHEUMATISM—REPEATED ATTACKS—TREATMENT BY SALICYLIC ACID AND BICARBONATE OF SODA—NO CARDIAC COMPLICATION.

CASE III.—This case has certain points of interest clinically, and also illustrates the two plans of treatment referred to for acute articular rheumatism.

John M——, æt. 28 years, single, was admitted to the hospital on the 25th. His habits have been good. He does not remember any severe illness except rheumatism, from which he suffered severely five years ago. The attack began in the feet and soon extended to all the large joints. He was then confined to his bed most of the time for four months. This was a duration which, at present, we are unable to explain. Recovery, however, finally took place, and he enjoyed a good degree of health up to five weeks ago, when he was again attacked by rheumatism. He entered the hospital, and was discharged at the end of three weeks. He was out of the hospital three days, when he returned suffering from the present attack of rheumatism. When admitted, his temperature was 101° F; his urine was scanty, acid, sp. gr. 1034, but no albumen. The apex of the heart was beating in the sixth intercostal space, a little to the left of the mammary line, and there was a very slight mitral systolic regurgitant murmur. This murmur was recognized when he was admitted to the hospital five weeks ago, and is probably due to the rheumatic attack from which he suffered five years ago. But since his last admission to the hospital, notwithstanding the severity of the attack, it has not increased in intensity, nor is there any evidence of cardiac complication. In the early part of the renewed attack he was placed upon the use of salicylic acid in doses of twenty grains three times a day, and one ounce of the saturated solution of bicarbonate of soda. He has so far recovered—now, at the end of six days—as to be able to come up to the amphitheatre. He is receiving a nutritious diet and moderate doses of quinine, and doubtless what cardiac affection exists will prove innocuous if necessary conditions are properly controlled.

CIRRHOSIS OF THE LIVER, WITH HYDROPERITONEUM—ALL MEDICINES STOPPED—DIETETIC CHANGE.

CASE IV.—Owing to the fact that my hour has nearly expired, I will merely present this patient with special reference to one point in her clinical history. I will not enter into details, but at once say to you that she has cirrhosis of the liver, with hydroperitoneum. She has suffered from this affection more or less for some time, and the cirrhosis is clearly traceable to the great cause of that affection of the liver—namely, a certain method of using alcohol. Some time ago, three and a half quarts of fluid were drawn from the abdominal cavity by aspiration. I am inclined to think that that is the best method of removing fluid from the peritoneal cavity. She then took diuretics for a while. The aspiration was made on the 20th of November. At the present time, December 11th, there is but little liquid in the abdomen, and the point in the clinical history to which I wish especially to direct your attention, is what occurred between the date of the tapping and the present examination.

The diuretic mixture upon which she was placed after the aspiration, consisted of infusion of digitalis, sweet spirits of nitre, and bicarbonate of potash. For a time, the daily quantity of urine passed was increased, and then the apparently favorable action of the diuretic ceased. While the patient was taking the diuretic mixture freely, the daily quantity of urine discharged was 5, 12, 13, 12½, 10, 12, 17, 18, 16, ounces, and although an increase from what it was previous to the aspiration, the desired effect was not produced.

On December 1st *all medicinal remedies were stopped*, and the patient was placed upon a full milk diet. The quantity of urine passed during the next twenty-four hours was 19 ounces; and we find recorded 39, 36, 30, 56, 54, 50, 70, and 69 ounces as the quantities passed on the days immediately following. Under the influence of the milk diet, the quantity of urine passed daily was at once increased, and the increase has been sustained up to the present date. Before December 1st the patient took but little milk, and had only a poor appetite. Since that time her general condition and appetite have greatly improved.

In clinical medicine there is nothing more important than to call into exercise our best judgment regarding *discontinuance* of medicinal treatment. I have been made aware of the fact that there is danger of error in the medical mind in *two* directions: first, we may be over-confident with regard to the efficacy of medicines. There are those who have such unbounded confidence in the efficacy of drugs that they never see the natural course of a disease. This error should be avoided. The opposite error, also, is to be guarded against; namely, an over-distrustfulness

regarding the benefits to be derived by the use of medicines. In the treatment of all chronic cases it is an excellent plan to occasionally cease all medicinal measures, and study the effect produced. The withholding of all medicines, and the dietetic change, have, in this case, yielded the most satisfactory results. The patient is now taking six pints of milk daily.

AMPUTATION OF THE THIGH FOR SARCOMA OF THE HEAD OF THE TIBIA:

BROMIDE OF ETHYL AS AN ANÆSTHETIC IN CAPITAL OPERATIONS.

A Clinical Lecture Delivered at the Pennsylvania Hospital, February 4, 1880.

By R. J. LEVIS, M.D.,

SURGEON TO THE PENNSYLVANIA HOSPITAL, AND TO THE JEFFERSON COLLEGE HOSPITAL.

(Reported for The Medical Record.)

This girl, 20 years of age, has been admitted for a large growth, involving the upper part of the right leg, and gives the following rather indefinite history: about three years ago she observed a small tumor, situated just below the right patella, which she thinks may be referred to a fall in which her knee was struck. The gradual increase of the tumor, as well as the lancinating and burning pain of which it is the seat, have impelled her to seek treatment in the wards of the hospital. She says that her mother had a tumor removed from her thigh, which has not returned up to the present time, but our information as to this point is very meagre. The measurements, taken when the patient was admitted, one week ago, are as follows: the circumference of the head of the tibia, where the growth is situated, is twenty and a quarter inches, while the calf below measures eleven and a half inches, and the thigh above the patella thirteen and a half inches. The length of the tumor, from above downward over the convexity, is in the neighborhood of ten and a half inches. The growth projects forward, and the leg has been gradually flexed during the progress of the disease, so that she is now unable to extend it. The tumor feels elastic, and at points gives the impression of fluctuation. The inguinal glands are slightly enlarged.

The history of this interesting case is not at all definite, and we must depend on an examination of the clinical characteristics to determine the nature of the growth, and to decide on the manner of treatment.

That the enlargement is not aneurismal is evident from the fact that it does not occupy the position of the popliteal or anterior tibial artery, and has no pulsation or bruit. You must remember, however, that we do have, at times, pulsating tumors of an aneurismal character, situated in the head of the tibia, which have been denominated bone aneurisms, though they are usually associated with rapidly growing vascular tumors of a malignant nature. A glance shows that it cannot be a chronic synovitis of the knee, with hypertrophy of the osseous structures, because it is situated below the joint, and there is no fluctuation showing fluid in the synovial cavity. The patella is felt lying in its fossa above the tumor, is movable, and not in any way involved in the disease. The growth, in fact, evidently involves the head of the tibia, and apparently that bone alone. It is a matter of moment to determine whether the tumor is benign or malignant. Surgically considered, it is of little use to speculate upon the microscopical structure of the tumors presented for our consideration if the malignancy of the growth is once proved. The clinical characteristics of malignant growths are, as a rule, involvement and infiltration of the surrounding structures, implication of lymphatic glands, and more or less rapid increase. If such aspects are furnished, the surgeon looks upon the disease with suspicion.

Here the growth has not been very rapid, and the pain not severe; the glands are only slightly involved, which may be due to mere sympathetic irritation, and no marked infiltration of the soft structures above and below exists. The most malignant forms of disease seem, therefore, to be eliminated, and the diagnosis becomes narrowed down to enchondroma, fibroma, and osteo-sarcoma of some variety. It is not always easy to distinguish these tumors, but the elasticity observed on palpation, the indistinct fluctuation, and the size and form of the growth, together with the age of the patient, have seemed to point to the diagnosis of sarcoma of the tuberosities of the tibia, undergoing, perhaps, cystic degeneration. Such cases are not uncommon, for in this hospital a number of cases of sarcoma of the lower jaw and other bones have been repeatedly presented at the clinic.

The treatment proper for this case is very evident. Whatever be the nature of this semi-malignant and increasing tumor, the indication is to get rid of it by amputation above the knee, as soon as possible, in order to prevent the breaking down of health accompanying the progress of such diseases. It will be necessary to amputate near the middle of the femur, to get flaps from the tissues above the seat of the tumor. Anæsthesia will be produced by the bromide of ethyl, which I have used during this winter, in my clinical service, almost exclusively. It is an agent pleasanter than ether, more rapid in its action, more evanescent in its effect, and apparently rather less liable to cause vomiting. The amount necessary to produce profound insensibility is far less than is the case with sulphuric ether. This is the largest operation in which the bromide of ethyl has been used by me as an anæsthetic agent, and it will be interesting to note the time occupied and the amount required. Two fluid drachms are poured upon a piece of folded lint, covered by a towel, to begin with, and one drachm added at intervals, as circumstances indicate. Although this anæsthetic resembles chloroform in many physical properties, it must be administered like ether, except in much smaller quantities. The woman is now ethylized, if we may use the term, and the elastic bandage is applied from the toes to a point above the middle of the thigh. A flat rubber band, an inch and a half wide, is then used for the tourniquet, instead of Esmarch's rubber tubing, which I dislike, because it constricts the nerves and tissues too firmly. Anteroposterior flaps are made, consisting of integument and a comparatively small portion of muscular tissue, which are always preferable to thick muscular flaps. The bone is readily divided a little below the middle third, and seems somewhat less hard than normal. The elastic tourniquet is removed after the femoral artery has been secured by a carbolized catgut ligature, which is, of course, cut off close, and allowed to become absorbed. Only two other vessels require ligation. The parts are approximated by wire sutures, and a rubber drainage-tube is introduced through the outer angle of the wound. The wound will now be washed out very thoroughly with carbolized water, forced in through the openings between the sutures by means of a Davidson's

syringe. This antiseptic method, which I believe is my own, is one of the most important features in the dressing of amputations and excisions. The water which contains carbolic acid, in the proportion of one to forty, is pumped in until it gushes out between the sutures, and carries with it all clots and bone-dust that may still be between the flaps. The end of the syringe is inserted into various openings successively, until the distended cavity is thoroughly cleansed and filled with the antiseptic solution. The water is not pressed out, but a piece of lint, saturated with carbolized oil, is applied, and a firm bandage adjusted. By this means, putridity and suppuration of the wound are avoided as much as possible, for decomposing clots are prominent factors in preventing union and causing suppuration.

Let us now see how much bromide of ethyl has been used during the operation. The patient was kept under its influence thirty-three minutes, during which time ten fluid drachms of the agent were administered. The anæsthesia at times was accompanied by stertorous respiration, and it was observed that during profound insensibility the pupils were contracted, though we have generally observed dilatation at such times. Consciousness returned promptly two minutes after the towel was withdrawn from her face, and the patient almost immediately expressed her thanks that the tumor had been removed. There was some nausea exhibited. . . . . The dressing was not removed for four days, and at the end of a week the sutures were all withdrawn, as union had taken place along the entire wound, except at the angles where the drainage-tube was placed, whence there was a small amount of healthy pus escaping. There has been some surgical fever, but the patient now, after the lapse of two weeks, is almost well, and could even be discharged. There is still, however, a little point at each angle where cicatrization is not complete, and whence a small amount of pus escapes. Microscopical examination by the pathologist showed the tumor to be a giant-celled sarcoma.

Original Communications.

MIDWINTER TREATMENT OF PHTHISIS IN MINNESOTA.

Clinical Study of Thirteen Cases, with Results.

By TALBOT JONES, M.D.,

ST. PAUL, MINN.

The *New York Medical Journal* for September, 1879, contained a paper written by myself, entitled "A Plea for Cold Climates in the Treatment of Consumption," in which I endeavored to give the profession some idea of the climate of this State with special reference to its effects upon subjects with phthisis pulmonalis, and at the same time expose some of the fallacies which obtain with regard to certain southern sanitaria, especially Florida and the West India Islands. The many and favorable notices which this article provoked, together with several reviews of it in the medical press both of this country and Great Britain, has induced me to widen and extend my investigations of this subject.

In my desire to make good my statements with reference to the favorable influence the climate exerts upon many cases of phthisis, I have, since the publication of that paper, kept a record of such cases as have come under my observation, and have been careful to make the notes as full as is necessary to a clear understanding of them by the profession at large. Gentlemen can then draw their own deductions as to results of treatment. The fact must not be lost sight of that the notes were made only during winter treatment. As the winter climate of this State has been persistently misrepresented, and its hurtful effects upon phthisical subjects greatly exaggerated, I am glad thus to be able to show, by these clinical cases, its actual effects in this direction.

There can be no difference of opinion as to the favorable influence it has during the summer months. This, I believe, is now no longer disputed in any quarter. But many excellent practitioners, in different portions of the country, fear that this climate during the winter season is too severe, and that nothing but harm can result to patients who spend their winters in this State. However, the cases I herewith report will show that, far from being injurious, the winter climate of this State is positively curative or beneficial.

Case I.—Sept. 3, 1879. Miss L., aged 20 years. Residence on Rondo street, in this city. Has had several hemorrhages. Predisposition to phthisis through heredity. Two of the family have died of the disease. One sister, at this writing, under treatment of a physician here for the same malady. Weight, 105 pounds. Is employed as a sewing-girl in a crowded manufacturing department of a large dry goods house. Present here much dust and bad ventilation. She is anæmic in appearance. Appetite quite gone. Has been troubled with cough for six months, first dry and hacking; now raises more or less muco-purulent matter. Has certain dyspeptic troubles. Dyspnœa upon exertion. Night-sweats and hectic. Physical examination showed bronchial breathing over small area at apex of right lung; broncho-vesicular respiration extending from one to one and a half inches beyond this spot. Slight involvement of apex of other lung. Dulness, though not marked, upon percussion over affected portion of the lung. Pulse, 104. Temperature, 101½° at noon. I advised her to quit her present employment; to take more exercise in the open air; sleep in well-ventilated apartments.

Sept. 30th.—Much improved, appetite partially restored. The cod-liver oil I prescribed could not be taken, and finally its use had to be abandoned.

Oct. 15th.—Continued improvement; night-sweats no longer experienced; cough much less, though expectoration rather more profuse and muco-purulent. Physical examination shows a persistence of the lung lesions, with no apparent improvement. General health much improved. Weight, 109 pounds. Color, before pale, now much better.

Nov. 5th.—Improvement so marked that, against my advice, she resumed her old employment in the dry goods store.

Case II.—Dec. 20, 1879.—Mr. L., of Philadelphia; patient of Dr. Hinkle, Dr. Da Costa consulting physician. Is 34 years old, and has led a sedentary city life. Has had, at intervals, hemoptysis three different times. Weight, 153 pounds. Before coming to Minnesota, he suffered from dyspnœa upon slight exertion, as in ascending a stairway or other acclivity. A walk of a few blocks caused rapid and difficult breathing. This case I did not examine physically, and know that there is some infiltration at the apex

of the right lung only from the patient's statements. He was told so by Dr. Da Costa after examination. I was not called upon to examine this patient for the reason that he did not need medical treatment—his improvement having been steady and uniform since his arrival here.

Jan. 26, 1880.—Patient remarkably improved in every way. Cough much less than formerly. Appetite keen, and assimilation of food perfect. The dyspnœa formerly experienced in walking has grown less and less, until to-day he walked to Lake Como and back—distant from this city two and a half miles—without experiencing fatigue. Prognosis in this case very favorable. It is one of those cases which would have been benefited by almost any change of climate.

February 1st.—Has gained twelve pounds since his arrival in this city. Treatment: cod-liver oil.

Case III.—Mr. J——, residing on corner Tenth and John streets, St. Paul, aged 40. Last fall had pneumonia, through which Dr. S. D. Flagg, of this city, safely carried him. Since then he has never been entirely well, but has had cough, more or less dyspnœa upon exertion, pleuritic pains, though never hæmoptysis; night-sweats occasionally, though never profuse or exhausting. Has lost considerable flesh. Has suffered from a constant pain over the apex of the left lung. A physical examination revealed dulness and other signs of infiltration, together with broncho-vesicular respiration at apex of left lung. Right lung somewhat emphysematous, which, as a complication of phthisis, is, in my experience, unusual. Another favorable case with regard to prognosis. Treatment: cod-liver oil and inhalations of tar-water and carbolic acid. Under this treatment, together with exercise in the fresh air, Mr. J. has greatly improved. Cough diminished. The loss of flesh, which was a marked feature in this case, was arrested, and he is now in a fair way to recovery. Has gained twelve pounds in three months, and is now free from pain and dyspnœa.

That this climate does not always act thus favorably is well shown by reference to

Case IV.—Miss O——, aged eleven years, residing on Franklin street in this city; lately from Canada, more recently from Minneapolis. Dates her illness from an attack of scarlet fever, which occurred during last May—eight months ago. Then lived in Minneapolis, and treated by Dr. Dunton. Has been more or less unwell from that time till about two months since, when there appeared a sudden aggravation of all the symptoms. She then began to experience great dyspnœa upon the slightest exertion. The number of respirations increased to twenty-eight or thirty per minute. Pulse two weeks later, when I first saw her, was 103¼° F. in the afternoon, and 100½° the following morning. She now had severe and exhausting night-sweats, harassing cough, and complete loss of appetite. She soon grew so weak that it was with difficulty that she was able to walk across the room. No hereditary taint. Physical examination showed the following condition of the lungs: dulness over the entire upper portion of the right lung, and, to a less extent, below this. The respiratory murmur exaggerated on the opposite side. Moist râles heard over the entire right lung. Auscultation showed marked bronchial breathing, with loud and prolonged expiratory murmur. Bronchophony. Cracked-metal sound upon percussion. Infra-clavicular region of right side sunken in.

Jan. 23d.—Continued high fever; some delirium at night with constant headache, and pain in the abdomen. Diagnosis: miliary tuberculosis, involving brain and bowels. Pain in the bowels so severe and constant that an opiate is necessary to quiet it.

Jan. 30th.—Night-sweats not so severe. Appetite better, and the child much more comfortable. Cannot arrest the loss of flesh. She is now thin almost to emaciation. Prognosis, of course, extremely unfavorable. She will probably not live a month.

Case V.—Mr. F——, resides near Lancaster, Penn. Patient of Dr. Raybrook. Dr. Wm. Pepper, of Philadelphia, consulting physician. There is slight infiltration at apex of left lung, with broncho-vesicular respiration over the lesion. No hemorrhages. Cough never very severe. Age of patient, twenty-nine years; weight, 155 pounds. The improvement of Mr. F. has been steady and uniform since his arrival here. All the symptoms which originally gave him trouble have now disappeared. Has gained nine pounds during the last six weeks. I have reason to believe that he will return home in a few months with his health perfectly restored. Treatment: cod-liver oil.

Case VI.—Mr. W——, of St. Paul, residing on Sherberne avenue; aged 31 years; has had phthisis for several years. Most of the time has been under the care of Dr. Owens of this city. The origin of the trouble dates back several years, and is directly dependent for its causation upon post-nasal catarrh. Dr. Owens concurs in this opinion. I will remark that, although post-nasal catarrh is an extremely common disease of this climate, that this is the only case I have yet encountered which has eventuated in phthisis. The condition of Mr. W. is as follows: weight, 120 lbs.; temperature, 100½°; respirations, 27 to the minute, much increased upon exertion; no hereditary taint; has had a cough, more or less harassing, for two years; no hemorrhages at any time; has had night-sweats though these have never been very profuse.

Physical examination.—Slight dulness upon percussion at summit of right lung, with exaggerated percussion-sounds over the opposite lung; mucus and subcrepitant râles; broncho-vasicular respiration, and an increased bronchial whisper. Slight depression below right clavicle. Mr. W. spent last winter in Florida, though with no material benefit. To my mind it is a mistaken idea to suppose that a patient leaving the highlands of Minnesota, with its atmosphere remarkably free from organic matter, rich in ozone, and which is cold, tonic, and bracing, will experience relief in the lowlands of Florida, where the atmosphere, as shown by hygrometric measurements, is loaded with moisture; which receives from two sides the marine atmosphere of the gulf and ocean, and which has in many parts of the State much malaria in it. The benefit Mr. W. derived by his trip to Florida was not enough to justify his returning the present winter.

The prognosis in this case is bad. However, for the past twelve or eighteen months the patient seems to have been holding his own very well. The case is still under observation.

Particular attention is directed to the two following cases, the import of which will presently appear. The patients are two brothers from London, Ohio. A study and comparison of their cases will strongly impress one with the value of a change of climate, if made early enough, and the uselessness of the change when, as is too frequently the case, it is made too late.

Case VII.—January 28, 1880. Mr. S——, from London, Ohio. patient of Dr. Wilderson; age, 20 years; color bad; height six feet one inch; weight

only 102 lbs.; temperature, 103½°; number of respirations, thirty-five to the minute, increased upon exertion; cough at first dry and hacking, now loose, with abundant purulent expectoration; extreme emaciation; profuse night-sweats, which have greatly exhausted patient; no hemorrhage at any time. Physical examination indicates an amount of lung disorganization, which, it seems strange, should exist and yet life be maintained. There is marked dulness upon percussion over entire infra-clavicular region of left side, with bronchial respiration, bronchophony, whispering bronchophony, and increased vocal fremitus. Cracked metal resonance upon percussion. Marked sinking in below clavicle on corresponding side. More or less broncho-vesicular breathing, with dulness upon percussion over lower portion of the lung. The lung of the right side is also badly affected. There is broncho-vesicular respiration and slight dulness upon percussion at its apex. The lung of this side more or less affected till the border of the fifth rib is reached. This patient, like so many others in his condition, put off coming here until it was too late. He has been in the State but two months. It is useless to speak of the prognosis: the question is only one of the number of days or weeks which he will yet survive.

Case VIII.—January 28, 1880. Brother of the preceding. It is fair to assume that they both have, to an equal degree, a predisposition to phthisis through heredity. A predisposition to the disease is undoubted, since already one brother has died of consumption, and a sister, at present in this State, also has it. Upon examination there was present more or less infiltration at the apex of the left lung, with slight dulness upon percussion and broncho-vesicular respiration. Pulse, 93; respirations, 23 to the minute; weight, 155 lbs.; color good; temperature normal; more or less cough of a dry, hacking kind; no night-sweats. This gentleman, unlike his brother, early took advantage of a change of climate—coming to Minnesota some eighteen months ago. He tells me that in the year and a half he has been in the State he has gained twenty pounds, and that his general health has very much improved. I would scarcely be afraid to predict for him a perfect cure, provided he remains long enough. He formerly experienced considerable dyspnœa upon exertion, but this has now disappeared. The results in these two cases are very suggestive. The one early took advantage of a change of climate, as said before; the other did not. The one has well-grounded hopes that his life may be indefinitely prolonged; the other will probably not live longer than one or two months. These are likewise instructive cases to those of our profession who are sceptical about improvement being effected by change of climate.

Case IX.—September 22, 1879. Mr. B——, of Jersey City, N. J., aged 27 years; color bad; came to St. Paul for what he supposed to be dyspeptic troubles. Weight, 117 lbs.; temperature, 99½° F.; number of respirations, 23 per minute, much increased upon exertion. Has had more or less cough since an attack of pneumonia, eighteen months ago. Has not been stout since then. Family history good; father and mother still living and well. Since his pneumonia has lost flesh slowly but steadily. Slight night-sweats at irregular intervals. Almost total loss of appetite. Two hemorrhages during the past six months.

On examination, I found slight dulness upon percussion at apex of left lung, increase of vocal resonance, and exaggerated bronchial whisper; broncho-vesicular respiration over circumscribed spot. No involvement of opposite lung. Advised the use of cod-liver oil, and insisted on his being in the open air all the time possible. At my suggestion, he went to White Bear Lake, near this city, where he could be in the fresh air almost constantly.

November 23d. Patient just returned from the lake, having been absent two months. Scarcely recognized as the same person. Cheeks now rosy. Told me he had gained 20 lbs. during his stay at the lake. Appetite fully restored; no longer has night-sweats.

His improvement so marked that he declared it as his intention to go into business in this city, and to make it his future home.

Case X.—Mrs. G——, from Michigan, aged 20 years, weight, 101 lbs. This case very much like the preceding one. The infiltration is circumscribed, but in the apex of the left lung. Temperature normal; pulse 90. Has had more or less cough, first dry, but now with some muco-purulent expectoration. Present illness due to pneumonia contracted three years ago. No history of hemorrhages. None of her family have had phthisis. Physical examination reveals slight infiltration at summit of left lung, with broncho-vesicular breathing, though this is not marked; feeble or jerking inspiration; expiration lengthened; slight dulness upon percussion; few moist râles. The lesion being slight, the prognosis in this case is favorable. It is one that would have improved by almost any change of climate. Since her stay in St. Paul (eight months), she has gained 9 lbs., now weighing 110 lbs. General health much improved; cough has almost disappeared.

This case was treated by Dr. A. J. Stone, of this city, through whose courtesy I was enabled to examine, and now to report it.

Case XI.—Mr. M——, merchant, of this city, formerly of Auburn, N. Y., aged 32. No predisposition to phthisis through heredity. His troubles date back three years. Weight, 145 lbs.; color at present, good. Suffers from post-nasal catarrh; respirations, 20 per minute; temperature normal. Only an occasional night-sweat, and then but slight; never had pneumonia; no history of hæmoptysis. Examination reveals slight infiltration at upper lobe of right lung, the spot not being larger than a silver dollar. Slight dulness upon percussion over this spot; diminished respiratory murmur, mucous râles, with a "crackling" sound heard when ear placed over the lesion. The patient was in Florida two winters ago, but did not improve sufficiently to justify him in returning.

Remained in St. Paul last winter and this. The patient is slowly regaining his strength, having gained 20 lbs. in as many months. However, there is a persistence of the infiltration, with no apparent improvement. Prognosis in this case, good. Treatment: cod-liver oil and inhalations.

Case XII.—February 3, 1880. Mrs. D——, of Dubuque, Iowa, patient of Dr. Jno. S. Lewis, of that city; married; 34 years old. Predisposition to phthisis through heredity. Patient considerably emaciated; weight, 96 lbs.; temperature, 102½° noon, 100½° morning; color bad. Persistent and harassing cough, with profuse muco-purulent expectoration. Night-sweats and more or less hectic. Never had pneumonia. Has had several hemorrhages during the past month while under my treatment. Physical examination: hollow, cavernous breathing when ear placed over summit of left lung; heard also over scapula. This murmur heard only in expiration.

Gurgling or bubbling sounds, cavernous voice. Cracked-metal sound upon percussion; dulness upon percussion over the lesion; plouritic pains over the chest and under the scapula. This, in connection with fever present, indicates the progress of the disease. Cod-liver oil could not be taken by this lady, owing to intolerance of the stomach. Prognosis bad. I doubt if the onward progress of the disease can be arrested.

Case XIII.—January 23, 1880. The following is a case which occurred in the practice of another physician of this city, who has kindly given me the data: Mr. L——, a railroad official, residing in this city, had pneumonia one year ago, and has never been entirely well since. More or less cough, which is dry and annoying. Age, 37; pulse, 93 per minute; temperature normal; respirations, 20 per minute. No hereditary taint. Since his sickness has lost considerable flesh; appetite bad, and he is troubled with what he supposes to be dyspepsia. Has had a few night-sweats, though these have never been profuse or exhausting. Weight, 121 lbs.

Physical examination shows a small amount of infiltration in the upper portion of the left lung. No dulness upon percussion over this region. Expiratory murmur somewhat lengthened. Few moist râles.

The injury to the pulmonary tissue being slight, the prognosis in this case is favorable. His physician advised a trip to Europe.

I place these cases, without comment, before the profession, and allow them to draw their own deductions as to results. I need scarcely say that they are not selected ones. Every case has been reported which has been seen by me in the time specified, and none have been withheld from publication on account of being unfavorable cases for a report. This is too serious a subject to be treated of in any such spirit of bias or prejudice.

That which is desirable in the study of this subject, to learn, and which it is of the utmost importance to know, is the actual effects of cold climates and warm upon phthisis; and, having ascertained this, we can then exercise a wise discrimination in the selection of a climate which will be best adapted to each individual case.

OSSIFICATION OF THE CILIARY BODY AND CHOROID.

By C. J. LUNDY, M.D.,

PROFESSOR OF CLINICAL DISEASES OF THE EYE, AND OF DISEASES OF THE EAR AND THROAT, IN THE MICHIGAN COLLEGE OF MEDICINE.

The development of true osseous tissue within the human eye has been occasionally noted, and yet it is sufficiently rare to warrant a few remarks upon a case which recently came under my observation, and which presented some peculiarities that had hitherto been observed only in a single instance.

It was until recently doubted by many, and is probably still doubted by a few, that true osseous tissue could be developed within the eyeball; but the question can no longer be disputed. It may be considered, then, as a settled fact that ossification may and does take place within the eye, and that this ossification is the product of a pathological process. The study of those products which are the result of tissue-metamorphosis deserves the attention of the special and general surgeon; and to some it may be interesting to know in what tissue or tissues, and under what circumstances, the ossific metamorphosis occurs. By pathologists it is pretty generally conceded that connective tissue, whether it is a natural constituent of a part or a pathological product, may be metamorphosed into osseous tissue during a plastic inflammation; and when bone is developed as a heterologous tissue, it probably takes its origin in this manner.

In speaking of the connective-tissue group (bone, cartilage, connective substance, etc.) and its behavior under pathological conditions, Frey says: "Almost every member of the group of connective tissues may be replaced by nearly any other, firstly by immediate metamorphosis, then again more particularly by reconstruction from the offspring of the original tissue."

Those cases of bony development within the eye which have been heretofore reported, have, with a *very few* exceptions, been cases in which the ossification took place within the choroid, or in inflammatory exudates from the choroid. During a pathological process true bone is likely to be developed only in connective tissue abundantly supplied with capillaries; and as the choroid has a richer supply of capillaries than any other portion of the human economy, it is naturally a favorite site for pathological osseous development. In chronic plastic inflammation of the choroid, connective tissue is found to be a constituent of the inflammatory exudation, and in rare instances this is developed into bone. It is probable, also, that bone is sometimes developed in the chorio capillaries of the choroid in a similar manner.

In an able article written a few years since, Prof. Knapp stated that ossification of the ciliary body, crystalline lens, or iris had never been observed, and expressed a doubt that ossification could take place in either of these parts. Since the publication of Professor Knapp's paper, at least two cases of ossified lens have been observed. Dr. Keyser, of Philadelphia, has reported one case in which the crystalline lens was entirely replaced by bone, and the microscopic examination demonstrated that it was true osseous tissue. Since the report of Dr. Keyser's case, another has been observed by Dr. Voorhies, of Memphis, and the microscopic examination in this instance showed that the lens was transformed into true bone. In Haynes Walton's "Treatise on Diseases of the Eye" (1875), the author states that an ossified lens was examined for him by Mr. Queckett, of the Royal College of Surgeons. The same author also states that "the whole of the ciliary body has been found ossified in an eye that had been atrophied from the pressure of a cancerous tumor." Contrary to our expectations, and contrary to our opinions regarding the circumstances under which ossification occurs, and contrary to the prediction of so able a man as Prof. Knapp, we see that ossification may take place in other parts of the eye than the choroid. Even the crystalline lens, a tissue entirely devoid of blood-vessels in the normal condition, has been found ossified in at least three cases. In this connection a question which would naturally present itself is, Whence did the plastic material come which supplied the elements for the ossific metamorphosis of the crystalline lens? I do not think it will be maintained that the plastic material was received from the choroid proper. To me it seems more probable that the ciliary body, whose circulation is largely concerned in carrying on the nutrition of the anterior portion of the eye, is the part which would be most likely to furnish the plastic elements for osseous development within the lens-capsule. Be that as it may, I shall not attempt to discuss the question further, and it has been in-

introduced here only for the purpose of showing that ossification may and does take place at other points than the choroid; and also to point out the strong probability that the choroid does not, in *all* cases, furnish the plastic matter from which bone is developed within the eye.

It is to be regretted that Haynes Walton, in referring to the case already quoted, has given nothing beyond the fact that the whole of the ciliary body had been found ossified. In the case which I am about to report, however, I have taken pains to have the specimen examined by a gentleman who is not only an expert microscopist, but who is also familiar with histology and pathology. I refer to Prof. Chas. H. Stowell, M.D., of the physiological laboratory of the University of Michigan. Dr. Stowell had the kindness to "mount" two microscope sections for me, which are represented in Fig. 2.

The history of the case is briefly as follows: Anna K ——, æt. 34, unmarried, of good constitution and fair general health, had small-pox when she was seven years of age and as a result of variolous pustules on the cornea she became blind in the left eye. As a result of the ulceration the cornea was perforated, prolapse of the iris occurred, and the inflammation extended to the choroid, subsequently implicating the ciliary body, thus involving the whole uveal tract. After a time the inflammatory symptoms abated, leaving the eye perfectly sightless, and the ball slightly atrophied. Seven years ago she began to wear an artificial eye over the atrophied bulb, and has continued to wear it most of the time since. After wearing the artificial eye for three or four years, the blind eye began to be irritable and painful at times, and for two years past she has been unable to wear the artificial eye constantly, on account of the discomfort it produced. For a year or more she has suffered from attacks of sympathetic irritation in the fellow eye, such as photophobia, lachrymation, accommodative asthenopia, blurring of vision, etc. These attacks were aggravated by any persistent attempts to wear the artificial eye, or by reading, sewing, etc. As the blind eye was irritable and painful, as the sympathetic trouble was increasing in severity, and as the case was liable to terminate in sympathetic ophthalmia, which would be likely to prove fatal to the sight of the fellow eye, it was deemed advisable to enucleate the atrophied bulb, and thus insure the patient against the risk of total blindness. It is often advisable to consider the cosmetic effect (particularly if the patient is a female) before deciding to enucleate an eye, and where an operation is imperatively demanded, the operation of neurotomy optico-ciliaris, as I have performed it, may often be substituted for enucleation. For obvious reasons, however, the cosmetic effect was not taken into consideration in this instance.

On July 17th I enucleated the eye. After it was removed it gave to the touch a sensation of rigidity such as we get in eyes containing bone or calcareous matter; and this hard resistant feeling was so marked in the anterior portion of the ball, that the presence of bone was at once suspected.

The diameters of the eye were shorter than those of the normal eye, as the following measurements will show: Antero-posterior diameter, 21 mm.; transverse diameter, 22 mm., and vertical diameter, 22 mm. The short antero-posterior diameter of the ball was largely due to a flattening of the cornea, which had lost all appearance of corneal tissue. The eye was placed in dilute alcohol, and was allowed to remain two weeks before being opened.

The eye was opened by an equatorial section, which divided the ball into an anterior and a posterior half, as shown in Fig. 1.

The retina was detached, as is usually the case when bone is developed in the choroid. In the pos-

FIG 1.

terior half of the globe (Fig. 1, at A,) a thin, compact plate of bone extended forward from the entrance of the optic nerve to the ora serrata. This plate of bone had no connection with that in the anterior portion of the eye (Fig. 1, at B) and no process of bone extended transversely inward to the centre of the eye, as has sometimes been observed. This thin plate of bone seemed to have been developed between the retina and the choroid, which led me to suppose that it originated in an inflammatory exudate which was poured out from the choroid during the long-continued inflammation of that portion of the uveal tract.

The chief point of interest, however, is the osseous development in the anterior portion of the eyeball (Fig. 1, at B). The ciliary body was found to be almost completely ossified, and its site occupied by a bony ring, which was not completely ossified at one point. In the centre of this osseous ring the crystalline lens was found embedded, and, after its removal, the remains of the iris were visible, and in the diagram they present a dark appearance. The bone occupying the site of the ciliary body was very firm and dense, and varied in thickness from 4 mm. to 0.5 mm. Its width varied at different points, but the diagram (B, Fig. 1), which is only a trifle larger than the specimen, illustrates this tolerably well.

From the microscopic sections prepared for me by Professor Stowell, I had drawings executed (Fig. 2) by Dr. Willard Chaney, assistant to the chairs of physiology and laryngology in the Michigan College of Medicine. These cuts illustrate the appearance of the sections when viewed through the microscope:

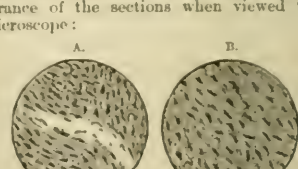

FIG. 2.

Figure 2, at "A," shows the appearance of the section from bone in the ciliary body, and at "B" the appearance of the section from bone in the choroid.

In both sections the lacunæ and canaliculi show very nicely. One point which is especially deserving of notice, in the section from bone in the ciliary body, is the presence of a Haversian canal, which in the diagram (Fig. 2, at A) may be seen as a

slightly curved line passing nearly through its centre. The presence of Haversian canals, in small irregular pieces of bone, which are of pathological origin, is quite rare. Although the absence of Haversian canals does not disprove the presence of true bone, yet the presence of these canals is a very positive proof of true ossification.

After making the examination and mounting the two microscopic sections for me, Professor Stowell sent me the following communication:

"The specimen marked 'Bone from Choroid' was taken from the thin plate of bone which lines, or rests upon, the choroid. Here you see the lacunæ, canaliculi, and even Haversian canals. The specimen marked 'Bone from Ciliary Body' was taken from the bony ring which corresponds to the ciliary body. Here you have *bone* in all its beauty. Notice what large lacunæ, and even how nicely the canaliculi show. The Haversian canals are not even wanting here.

"The bone was clipped from the 'ring' with scissors, then ground between bones, and mounted in hard Canada balsam; the object being to retain *air* in the lacunæ and canaliculi; and thus having the highly refractile balsam on both sides, the air looks dark—nearly black.

"I consider this one of the choicest and most rare specimens I have ever seen. Its origin is certainly strange to me."

As to the rarity of the specimen there can be no doubt, for, so far as I am aware, it is the first instance in which ossification of the ciliary body has been properly demonstrated. Stellwag states that osseous scales have been found in the ciliary body in cases where chronic irido-choroiditis had existed. Where an irido-choroiditis exists for any length of time the ciliary body must, of necessity, be implicated; and in the case of my patient there is no doubt that a chronic inflammation of the whole uveal tract, iris, ciliary body and choroid, existed for a long time. What influence the wearing of the artificial eye may have exerted over the process of ossification, by helping to keep up a chronic cyclitis, is an interesting question, but one whose solution is impossible.

52 Lafayette Avenue, Detroit.

ANATOMICAL ANOMALIES.

By Dr. ELLIOTT COUES, U.S.A.

I desire to place on record the following very unusual arrangement of the branches of the subclavian arteries, discovered by Mr. Frank Baker, Prosector to the Chair of Anatomy in the National Medical College at Washington. The subject was an adult male, colored. The subclavians themselves were normal.

On the right side.—Thyroid axis small, undivided for an inch or more, then dividing into transversalis colli, inferior thyroid, and ascending cervical. Transversalis colli very small and lost in the scalenus medius and levator anguliæ scapulæ, instead of continuing down the scapula or posterior scapular. Posterior scapular given off from the first portion of the subclavian, of large size, passing directly to the posterior superior angle of the scapula, and thence continuing down the vertebral border of that bone.

Suprascapular of great size given off from the internal mammary, one and a half inches from the origin of that artery, escaping from the thorax by rising behind the first rib; thence proceeding straight to the scapula, behind the subclavius muscle, crossing the subclavian artery in the third portion of the course of the latter, and gaining the suprascapular notch by passing over the transverse ligament.

Internal mammary normal in its origin and course, but giving off the suprascapular, as just described, and also giving off a second or supernumerary inferior thyroid artery, additional to the weak inferior thyroid already noted as a branch of the thyroid axis, thus transforming itself into a sort of "mammary axis."*

Vetebral and superior intercostal as usual

Thus, the right subclavian had *five* branches instead of four, the additional branch being the posterior scapular. The arrangement otherwise peculiar in the following respects: *a*, presence of a supernumerary inferior thyroid, arising from the mammary; *b*, transversalis colli not continued as posterior scapular, which was an independent branch of the subclavian; c, origin of suprascapular from the mammary.

On the left side.—Condition of the weak thyroid axis as on the right side.

Posterior scapular arising from second portion of the subclavian.

Suprascapular arising from the subclavian at onter border of first rib; thus, almost from the axillary, and very different from the same artery on the right side and passing under the transverse ligament with the nerve.

A small, anomalous artery, soon spent on the scalenus medius and longer colli, arising independently from the first portion of the subclavian.

Vertebral, superior intercostal, and internal mammary normal.

There were thus *seven* branches of the left subclavian, the three abnormal ones being the posterior scapular, suprascapular, and the anomalous artery just mentioned.

To recapitulate the chief points:

1. Both posterior scapulars from the subclavians, with no connection with the transversalis colli.

2. Right suprascapular arising in the thorax from the internal mammary (nnknown before?).

3. Duplicate inferior thyroids on the right side; the supernumerary one from internal mammary.

4. Anomalous artery from first portion of left subclavian.

5. Right subclavian with five branches; the left with seven.

Washington, D.C., February 11, 1880.

Compulsory Examination for Color-blindness.—The Secretary of the Treasury has issued an order to the local steamboat inspectors directing them not to give new licenses to pilots, or renew old ones without a preliminary examination for color-blindness. The examinations are to be made by the surgeons of the United States Marine Hospital Service, and are free of charge.

* Mr. Baker suggests a different view: to regard what I have called "thyroid axis" as only the transversalis colli, giving off ascending cervical and tracheal branches; what I have called the supernumerary inferior thyroid as the true artery of that name, though coming off from a mammary. This would give, as hinted in the text, a sort of "mammary axis," dividing into inferior thyroid, supra capular, and mammary proper.

I may add that, in dissecting the right axilla, the subscapular was found nearly as large as the brachial, and that from it arose two long thoracics—the posterior circumflex and the superior profunda of the arm.

THE
SALICYLATE OF POTASH IN ACUTE RHEUMATISM AND DYSPEPSIA.

By M. DONNELLY, M.D.,

NEW YORK.

The alkaline treatment in acute rheumatism has always impressed me with the idea that it was the most thorough and scientific course, and the one best calculated to neutralize the acid poison in the blood causing that painful disease; and when the salicylate of soda was added to our therapeutics, I found it of great assistance in limiting, or cutting short, attacks of acute rheumatism.

But the salicylate of soda, a neutral salt, never seemed sufficiently alkaline to correct the acidity of the blood, and so long as the blood remained acid, there was danger of the heart becoming involved; and this to my mind explains the frequency of cardiac disease under the salicylate of soda treatment. This theory has been proven by some experiments reported in the *Lancet*, Sept. 20, 1870, by Drs. Findlay and Lucas, who found that the salicylate treatment gave the most prompt relief, but there was an increase of endocardial and pericardial disease over the simple alkaline course.

The desire to combine the rapidity of action of the salicylic acid with the safer alkaline course, prompted me to investigate the subject, and *the salicylate of potash* is the result of my labors.

The alkali I have found most prompt in neutralizing the acidity of the blood is the bicarbonate of potash, and the thought occurred to me that this salt, from its ready solubility, might be united with the salicylic acid, and thereby obtain a *thoroughly alkaline salicylate*. Three parts of salicylic acid, and two parts of bicarbonate of potash in water, formed a neutral solution: but I found that the potash could be increased to the proportions of *two* of the alkali to *one* of the acid; say, twenty grains of the bicarbonate of potash to ten grains of the salicylic acid, in one drachm of water; and this solution evaporated to dryness left a strongly alkaline salt—the salicylate of potash—extremely soluble in water, and of a sweetish taste.

For several months I have prescribed the salicylate of potash with the greatest benefit in two diseases: acute rheumatism and dyspepsia.

The large doses of salicylic acid, or the salicylate of soda, required to act in acute rheumatism, is one of the greatest objections to their use, especially when any cardiac disease exists or is feared. In employing the salicylate of potash, large doses of the acid are not required; from eight to twelve grains of the acid to double that quantity of potash seems quite sufficient—the following formula being the one I have most frequently prescribed:

℞ Acid. salicylic..... ℈ iij.
Potass. bicarb..... ℈ vj.
Aquæ ..... ℥ ij.
M. S.—A teaspoonful every three hours.

The rapidity of action of this combination is remarkable. Its absorption seems to be immediate; the patient will speak of the speedy relief he experiences; the blood is restored to its natural alkalinity, as seen by the diminished acidity of the perspiration and urine; the brick-dust sediment (urates) in the latter disappears, the pain and swelling of the joints soon subside, and the metastatic character of the disease is lost. Judging from the effects in a dozen cases in which this treatment has been employed, it is no over-estimate to say that the salicylate of potash seems as thoroughly abortive of acute rheumatism as quinine is of intermittent fever.

The salicylate of potash is continued as long as pain and swelling remain, and then iodide of potash is given for a short time, but a most essential part of the treatment is yet to be mentioned.

The blood not only should be rendered alkaline, but also restored to its normal condition, by the administration of an alkaline form of iron; and the best for this purpose is the tartrate of iron and potash. The following is my mode of prescribing it:

℞ Ferri et potassii tartras . . ℈ iij.
Aqua fervens .. . . ℥ iij.
Fiat solutio, adde
Glycerini ..... ℥ vj.
M. S.—A teaspoonful in two ounces of water three times a day, two hours after meals.

No relapses and no heart disease have followed in the cases treated in this way.

Adopting the theory of Murchison, that gout, rheumatism, and derangements of digestion arise mainly from "functional diseases of the liver," I find it good practice to commence the salicylate treatment by a brisk mercurial cathartic.

The well-known quality or power in salicylic acid, of preventing fermentation and controlling noxious gases, first led me to try this drug in dyspepsia, and I found it very promptly relieved flatulence and eructations of gases from the stomach; and not only this, but it was also very soon apparent that as a stomach tonic it was superior to quinine or barks.

The powder was first used, then the salicylate of soda, and last the salicylate of potash—the latter proving more beneficial than either of the other forms, which may be attributed in a great measure to the alkali acting on the biliary secretion, while the salicylate, combined with tincture of nux vomica, makes an excellent stomach tonic. A favorite formula of mine for dyspepsia is:

℞ Acid. salicylic.,
Potassa bicarb ..... ää ℈ ij.
Aqua,
Syr. cort. aur..... ää ℥ vj.
Tr. nucis vom..... ℥ ij.
M. S.—A teaspoonful three times a day.

This remedy is administered in a wineglass of water, half an hour before meals, until the appetite improves; then is taken soon after eating, for the purpose of stimulating the digestive organs, especially as Balfe has demonstrated that the alkalies have a more decided action during the process of digestion than when the stomach is empty.

Whenever torpidity of the liver and its sequence, constipation, are found as a cause of dyspepsia, I prefer to use the twentieth of a grain of strychnine with one and a half to three grains of aloes and myrrh.

In conclusion, I submit the salicylate of potash to the profession, hoping it will prove as safe and speedy a remedy in other hands as it has been in mine, in the cure of acute rheumatism and dyspepsia.

354 WEST THIRTIETH STREET.

DR. E. M. NELSON has been appointed editor of the *St. Louis Courier of Medicine*. He is an experienced and energetic journalist.

Progress of Medical Science.

Hare-lip. — In a very elaborate paper on this subject, Dr. W. I. Wheeler, of Dublin, enters into the minutiæ of this deformity, and relates a few striking cases, selected from a large number that have come under his observation. All of these cases were successfully operated on, the distorted parts being restored to their normal positions. With respect to the proper time for operation, Dr. Wheeler claims that no absolute rule can be laid down. When feeding is seriously interfered with, it may be necessary to correct the deformity very soon after birth, while again the patient may not be possessed of sufficient vital force to withstand so severe a shock until months, or even years, have passed. When, however, the surgeon is able to make a choice, Mr. Wheeler would choose from *three to six weeks after birth, and certainly within three months.* There are several results to be looked for from the operation, the most important being the closure of the fissure. It would seem equally essential, however, that the prælabial curve should be restored, the unsightly notch prevented, the fossa labialis formed, and the nose, whether distorted on one or both sides, restored to its proper position; and all these can, in the majority of cases, be attained by a proper exercise of surgical artistic skill. The treatment of the protrusion of the intermaxillary bone is fully discussed in the paper, and the conclusion arrived at that it should not be removed. In almost every case it can be bent back into position, and held there by interosseous sutures, the gums being joined over it by the interrupted suture. Dr. Wheeler believes that the hare-lip pin affords the best means for avoiding the notch, elevating the nose when depressed, and holding the parts evenly together. He believes, further, that no instrument or special bandage devised for supporting the cheeks will ever supersede plaster or give the same even support. In addition to the narrow strips ordinarily employed, great advantage will be derived from a large strap passing under the chin to the malar bones, the soft parts being pushed forward towards the mouth before its final adjustment. To prevent hemorrhage from the coronary arteries he uses strong spring-compressors, which facilitate the operation by affording more room for the operation, steadying the muscles, and rendering the cut edges much drier when about to be joined. He uses the scissors for refreshing the edges in preference to the knife, and claims that much advantage is derived from the addition of a sheath on the under blade. By means of this modification the operator can accurately gauge the amount of tissue cut, and thus sever it in one stroke. the solidity of the under-blade giving support to the lip. The addition of this sheath gives all the advantages claimed for the bistoury, and removes the objection to the scissors.—*The Dublin Journal of Medical Science*, January, 1880.

Laryngeal Hemorrhage.—Dr. J. H. Hartman, of Baltimore, reports the following case: The patient, a member of a singing society, had, on the evening in question, attended a rehearsal, being then in perfect health. About an hour after his return home he experienced a choking feeling and expectorated two or three ounces of pure bright-red blood; this was controlled by the free use of ice. The next morning, soon after rising, he had another hemorrhage, but this time the ice produced no effect. On examination no pulmonary or heart trouble could be ascertained. On inspecting the larynx it was found that the hemorrhage was caused by the rupture of a capillary vessel about the middle of the left ventricular band. The flow of blood was checked by a strong solution of ferric alum with glycerine and water, each ʒ ss.—*Reprint from St. Louis Medical and Surgical Journal*, December, 1879.

The Accidents which have been Observed after Thoracentesis by Aspiration Practised for the Removal of Pleuritic Effusion.—Dr. N. P. Dandridge, of Cincinnati, sums up an article on the above subject as follows: The operation should not be considered as a trivial one; the conditions and surroundings of the patient, in reference to the most efficient means for combating any unpleasant consequences, should be taken into consideration. The operation should only be undertaken when complete repose and rest can be secured afterward, as fatal symptoms have developed in half an hour or more after aspiration. The following accidents may occur: syncope, fatal or transient, due either to reflex action, or to the paralyzing influence on the heart-walls of the sudden removal of the pressure of the pleuritic fluid; convulsions, either reflex, or due to minute emboli in the cerebral vessels; pulmonary congestion and œdema suddenly developed, either with or without the rapid accumulation of a serous exudation to the bronchial tubes thus producing asphyxia; embolic obstruction of the pulmonary artery in the sound lungs; embolic processes in different organs, of varying degrees of severity and having their origin in clots previously formed in the pulmonary veins of the compressed lungs. When these last occur about the time of, or soon after the operation, they may have been excited by it; if they develop days afterward they must be held as incident to the original trouble, and no way connected with the operative measures undertaken. He does not consider that there is conclusive evidence to show that the transformation of a serous into a purulent effusion is due to the operation. Nor does he believe that serious accidents have occurred from wounding the lung.—*The Cincinnati Lancet and Clinic*, January 3, 1880.

On the Treatment of Night-Sweating in Phthisis—Jaborandi and Pilocarpine.—Dr. Murrell publishes the results of treatment in thirty-three cases of sweating, in which either jaborandi or pilocarpine was administered. Thirty patients were affected with phthisis; seventeen cases were given pilocarpine, generally the nitrate, but occasionally the hydrochlorate. The dose was usually one-twentieth of a grain; at first it was administered in solution in water, but latterly in the form of pill, with sugar of milk. The drug was given three or four times a day. In night-sweating one dose at bedtime will suffice, unless the sweating is profuse, when it is best to give three pills during the night. He never gives the drug hypodermically. Pilocarpine acts slowly; it does not over-dry the skin, but leaves it moist. On account of its tastelessness it can be readily administered to children. Jaborandi was given in sixteen cases; two had rickets, one emphysema and bronchitis, while the remainder were affected with phthisis. The doses varied from one to twenty minims every three or four hours. In a case of sweating accompanied by flushings, the tincture of jaborandi, in minim doses every three hours, checked the former in one week, but the flushing remained. On the other hand, in two cases in which there were flushings but no sweat-

ing, relief was obtained by the use of tincture of jaborandi, in five-minim doses every four hours. Phthisical patients stated that the drug "did the cough good," "brought up the phlegm," and "eased the breathing." It is therefore useful as an expectorant.—*The Practitioner*, December, 1879.

A Contribution to the Therapeution of Starch-Digestion.—Dr. Roberts, of Manchester, England, gives the results of his investigations on the subject of the digestion of starch. He says that in infants under three or four months of age saliva has a feeble diastatic power; further he has ascertained that the pancreas of sucking calves does not possess any diastatic power, and that it is fair to presume that the pancreas of the infant at the breast is in the same condition. For this reason farinaceous food cannot be digested by young infants, unless some artificial means be employed. Malt-extracts being infusions of malt concentrated to the consistency of syrup or molasses, by evaporation (containing about seventy per cent. of maltose, which is of no more value as food than an equal amount of syrup), the diastase exists only in small quantity. As to malt-infusion, it possesses powerful diastatic properties. It is made as follows: three ounces of crushed malt are very thoroughly mixed in a vessel containing a half-pint of cold water; the mixture is allowed to remain from twelve to fifteen hours, and then passed through filtering paper until it comes through perfectly bright. It is rich in diastase, and contains maltose in considerable quantity. As it is liable to fermentation, it should be freshly prepared each day, or it may be preserved by adding a few drops of chloroform to the infusion, and keeping it well corked. He thinks that the malt preparation will prove of more service if taken with the food than after the meal, as, by so doing, it will become thoroughly mixed with the food. An excellent way of administering malt-infusion is by adding one tablespoonful to half a pint of gruel. In conclusion, he speaks of the liquor pancreaticus, made by infusing one part of fresh pancreas with seven parts of water; this was found to possess twenty times the diastatic power of the malt-infusion alluded to.—*The Practitioner*, December, 1879.

The Diseases of Blood-vessels of the Ovary in Relation to the Genesis of Ovarian Cysts.—Dr. Noeggerath does not believe that the development of the cystoma adeno-glandulare is due to an angiomatous genesis of ovarian cysts, the objection being that it is necessary to assume that it is developed from tissue which, in its embryonic state, belongs to a non-epithelial stratum. He describes the bodies sometimes found in the ovaries as presenting the shape of leaves, elliptical, ivy-, or kidney-shaped, some having a stalk of denser tissue than the mass itself. The body consists of a homogeneous mass made up of minute fibres, composed of granular matter. The stalk spoken of above was found to be a blood-vessel, gradually passing into the leaf-shaped body, this latter structure being more hyaline. In examining the ovaries of women beyond the climacteric period, he found blood-vessels undergoing hyaline degeneration. A peculiar feature is, that the vessel is not affected by carmine, rosaniline, or hematoxiline, while the surrounding tissues are deeply stained. The coats of the vessels are enlarged, and the lumen very much encroached upon. The intima, or the adventitia, in the beginning of the process, begin to look sclematous, the single fibres of connective tissue becoming indistinct, and finally appearing like a number of finely split up white elastic tissue fibrils which have been glued together. The nuclei soon began to grow thinner and shorter, remaining thicker in the centre and thicker at the poles, assuming shapes occasionally seen in myxomatous tissue. The gradual giving way of the nuclei is the cause of the resistance to staining, although eosine with hematoxyline causes the altered vessels to assume a faint, rosy, or yellowish rosy color. As to the changes in the vessels, loops of vessels can be seen merging into bodies which show no markings and form but one homogeneous mass; they then look like the corpus albicans between the third and fourth month after gestation. Both veins and arteries may undergo this process, and he therefore believes that a great many bodies heretofore described as corpora albicantia and lutea, are nothing but degenerated blood-vessels. Another form of degeneration occurs in the smaller arteries, of a twofold character: first, a hyaline degeneration of the connective-tissue portion of the intima, and of the fibres dispersed between the single rows of muscle-cells; second, a growth of the cellular elements of the media, so that lumen becomes almost entirely obliterated. Groups of vessels lying together are often affected, and closely resemble the corpus luteum of pregnancy. The principal difference in the two bodies is that while the cellular elements of the corpus luteum give way before the connective-tissue portion interposed between the cells, and become more solid, the other body, by atrophy, loses its fibrous elements, owing to the growth of single cells. In the first there is an irregular cavity in the centre, containing broken-up cells which are glued together in a shapeless mass. Gradually all the cells in the group of disorganized vessels become separated, softened, and are dissolved; by exosmosis, the serous portion is increased, and a small cyst results, the walls of which consist largely of normal ovarian tissue. The writer then describes other changes which take place, resulting in the formation of cystic cavities.—*Reprint from Am. Jour. of Obstet.*, January, 1880.

The New Anæsthetic—The Bromide of Ethyl.—Dr. R. J. Levis gives the results of his observations as to the anæsthetic properties of this drug. It is characterized by rapidity of action and quick recovery from its effects. It does not influence the circulation to any marked extent, nor is there the same danger from cerebral anæmia and fatal syncope as is seen when chloroform is used. In its effects on the respiration, bromide of ethyl resembles ether more than chloroform, producing only ordinary anæsthetic sleep. Nausea and vomiting are less frequent than with other anæsthetics. Its odor resembles somewhat that of chloroform, although it is less agreeable. It also possesses an advantage over chloroform in being entirely eliminated through the lungs. There is less tendency to struggle and to general excitement, when the bromide is used, than when the other anæsthetics mentioned are employed. Anæsthesia is generally produced by this drug in from two to three minutes, and the quantity necessary to produce this result is from one to eleven drachms.—*Reprint from Phila. Med. Times*, January 17, 1880.

Oil of Eucalyptus an Innocuous Substitute for Carbolic Acid.—Schulz, of Bonn, has found that oleum eucalypti is devoid of all toxic action. This oil appears to combine the various advantages of carbolic acid without sharing its dangerous properties. It was found to have powerful antiseptic quali-

ties; was readily soluble in alcohol and oil, and mixed well with paraffine; besides, it had an agreeable odor. Lint, gauze, etc., prepared with the oil, make convenient and serviceable antiseptic dressings. It is also suitable for the spray and irrigation.—*Centralbl. für Chir.*, No. 4, 1880.

Spontaneous Osteomyelitis of the Long Bones.—In a paper on this subject, read before the Rock River Medical Society, of Wisconsin, Dr. Senn, of Milwaukee, formulates the following conclusions, after consideration of his own cases and those found in the literature of the subject:

Spontaneous osteomyelitis is an infectious disease.

It is most prevalent in damp, changeable climates, and during the winter and spring months.

It affects, by preference, individuals during the period of growth and development of bone.

Traumatism and other agencies, which produce a retardation or arrest of circulation in the vessels of the marrow, act only as determining causes.

Its primary seat is usually in the marrow of the cancellated tissue, in close proximity to the epiphyseal cartilages.

Joint affections are frequent and prominent complications of this disease.

Thrombosis and inflammation of the veins of the marrow-bone, periosteum and soft parts, are of frequent occurrence, and are the direct causes of pyæmia.

Swelling is absent for the first few days, but, when it does occur, becomes rapidly diffuse, and is attended by œdema and enlargement of the superficial veins.

Fluctuation is diffuse, so far as its existence can be ascertained.

A constant high temperature and typhoid symptoms indicate the gravest type of the disease.

Death may result from the intensity of the primary infection, but is usually produced by some complication.

Early removal of the products of inflammation, under strictest antiseptic precautions and local disinfection of the tissues, are of paramount importance for its successful treatment.

Excision of the shaft may become necessary during the acute stage, to prevent exhaustion from profuse suppuration; this rule is not applicable if the humerus or femur is affected, on account of the impossibility of keeping the limb in position until regeneration of bone has taken place.

In most cases fixation of the limb is necessary, for the purpose of procuring rest, and to prevent deformity.

Early incision, although usually subjecting the patient to the additional danger of pyæmia, may, he thinks, be safely performed, if strict antiseptic precautions be taken. Many advantages are derived from this procedure; it gives exit to pus, enables the surgeon to examine the condition of the bone, and is of important diagnostic value. If the opening of an abscess external to the bone is followed by immediate relief of symptoms, internal disease of the osseous tissue may be excluded; but, if no relief, or only partial relief be attained, trephining is indicated to give exit to the inflammatory products within the compact layer of the bone. In some cases he simply evacuates these abscesses with the aspirator, and then washes the cavity with a five per cent. solution of carbolic acid. He also employs this treatment for sero-purulent and purulent effusions into joints, repeating the operation as often as necessary; where, however, a purulent effusion rapidly re-collects, it will be necessary to open the joint and establish free drainage. Salicylate of soda is recommended in large doses, to reduce the temperature and neutralize the infectious material supposed to be circulating in the blood. Should signs of pyæmia arise, he places his main reliance on the administration of large doses of quinine and alcohol, and the placing of the patient under the most favorable hygienic influences. After the subsidence of the acute symptoms, iron, especially the tr. ferri chlor., should be freely administered. Any dyscrasia, as syphilis, scrofula, tuberculosis, or scorbutus, should be corrected by appropriate medication.—*Chicago Medical Journal and Examiner*, January, 1880.

Peritoneal Transfusion of Blood.—Some time ago Prof. Ponfick directed attention to a new method of transfusion. He injected defibrinated blood directly into the peritoneal cavity. As advantages of this method were claimed: simplicity of operation, and the absence of danger from disturbance of the heart, brain, or lungs.

Profs. Bizzozero, of Turin, and Golgi, of Pavia, have made an extended series of observations on this subject. The experiments were on rabbits, and only defibrinated blood was used. They wished to ascertain whether the injected blood really found entrance into the vascular system. In order to do this they determined the quantity of blood by measuring the amount of hæmoglobin by means of their chromo-cytometer.

The following conclusions were reached:

1. The blood-globules entered the blood-vessels; in as short a time as twenty minutes after peritoneal injection a progressive increase of globules was observed; the maximum increase was attained on the first or second day.

2. The increase of hæmoglobin was proportionate to the quantity of injected blood, but the increase never exceeded fifty-seven per cent. of the original amount of hæmoglobin.

3. This increased globular richness lasted several weeks and longer, but after the maximum augmentation of the first or second day there was a steady decrease, though this never quite reached the original level.

4. An increase was noted in healthy animals as well as in those rendered artificially anæmic.—*Allg. med. Cent.-Zeit.*, No. 4, 1880.

Treatment of Empyema by Thoracentesis and Irrigation.—Kashimura, of Tokio, Japan, has devised a simple little instrument for this purpose. It consists of a trocar, with a stop-cock and two lateral canulas. To the latter he has attached rubber tubes, each provided with a clamp. This apparatus has been used in the following manner: both tubes were filled with an antiseptic solution and then closed by means of the clamps. One tube was connected with a graduated vessel holding the fluid for irrigation, the other dipped down into a suitable basin containing some of the same fluid. The thorax was punctured in the usual manner, the stylet withdrawn, the stop-cock closed, and the clamp of the evacuating tube loosened. Enough pus having escaped, this lower clamp was again closed, the upper one opened, and the warm irrigating fluid allowed to flow, with gentle pressure, into the pleural cavity. This was repeated until the return fluid became clear. The trocar was then withdrawn and the patient treated after the usual manner. The histories of several successful cases are recorded.—*Berl. klin. Woch.*, No. 3, 1880.

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THE MEDICAL NIGHT SERVICE.

Although the fact that a medical night service in Paris is not new to our readers, the paper by Dr. Nachtel in the previous issue of the MEDICAL RECORD will call renewed attention to it. The description given by that gentleman of the origin, working, and usefulness of the system is calculated to impress the profession with the benefits which might arise by its employment in this and other cities. Arguments are not necessary to prove that most of the serious cases occur during the night-time. The human organism is then not only in a condition, by its lower vitality and its diminished power of resistance, to invite the attacks of disease, but most diseases already existing have their exacerbations during that period. For the same reason alarming complications are apt to declare themselves during sleeping hours, and it is well known that the major part of the work of the obstetrician is done in the small hours of morning. Again, aside from the usual chances of increase of dangerous symptoms during the night, there is a liability to all accidents connected with debauchery, and oftentimes these are of an especially dangerous and urgent character. But it is unnecessary to go farther to show the need of medical service during the night-time, and that such should be rendered with despatch.

With the exception of the case of the person who is picked up in the street, suffering from injury or accident, and who comes directly under the care of the police, there is no provision whatever for prompt attention to others similarly affected. The surgeons of the police are expected to attend only to such members of the force as desire them, and to such other cases as suffer from accident in the streets previous to their being sent to hospital. Thanks to a very efficient ambulance service, very few street accidents or injuries are deprived of prompt attention, nor is an admission into hospital unnecessarily delayed. But there is another class which claims the attention of members of the medical profession—a class no less liable to accident, injury, or disease, but who suffer in their lodgings, are strangers, and do not know where to send for aid. We can hardly say that numbers of such patients die for lack of attention, but it is fair to presume that, not unfrequently, serious results obtain for the want of prompt relief, which could have been given by an efficient system of night service. There is no guarantee for a stranger taken sick against the possibility that the doctor who may be called in from his neighborhood is not wholly incompetent, or is not a miserable and irresponsible quack. On the other hand, the physician who is trustworthy is not liable to respond to the call of a stranger, and balance the chance of a much-needed night's repose against the slim possibility of either adding the patient to his regular list, or of collecting the fee for his visit. If the people expect a physician to take such chances of remuneration, and, in the event of missing them, to console himself that he has done a noble act for a fellow-sufferer, they must select one whose time in the day can be occupied in making good the lost hours in the night. It is a rule with many physicians in active practice, save in very exceptional cases, never to take a new case in the night. Emergencies occurring only among families of their own patients receive such extra attention. This is a means of self-protection against overwork and want of sleep which every hard-pressed practitioner must necessarily take advantage of. Such being the case, there is almost always great delay in eventually obtaining the services of a physician who is willing to attend to the call, and it may possibly happen that the patient may die before relief can come.

The night medical service, as detailed by Dr. Nachtel, would seem to supply all the possible wants, not only of the wealthy stranger who may fall suddenly ill, but of the poor laborer, the members of whose family may be in need of prompt and efficient medical services.

The fact that such a system has been in successful operation in Paris for several years past is sufficient proof of its efficacy, and gives a promise that, with certain modifications, it may be imitated in this and other large cities.

As will be recollected, a certain number of younger medical men signify to the police of the district in which they reside their willingness to attend night calls. In case of emergency, the police officer on duty at the station acts as a messenger for the physician, escorts him to the patient's house, and returns with him if necessary. The payment of the visit is insured by a check from the officer, the money for the same being obtained either from the patient himself, or direct from the department. By this arrangement there is no possible delay; the

patient has guaranteed to him first-class medical services, and the physician is promptly paid for the services rendered.

The police are possibly the best agents for the success of such a system, inasmuch as their stations are within convenient reach, are sufficiently numerous to be available, and there officers are always on duty. As regards the physicians who are employed, there is no favor to be shown, and while a great good is done to the patients attended, the needy physicians, those of limited practice, receive a fair remuneration for their services.

Again, these physicians may not infrequently continue their services regularly upon the wealthier strangers, while with the poorer they may, under the same circumstances, obtain fees which may remunerate them for continuous attendance. Their introduction of physicians as competent and responsible men will tend to establish them in the confidence of their new patients. It is, perhaps, unnecessary to say in this connection that none but regularly educated medical men are allowed upon the lists at the police districts.

Another point in recommending the adoption of the night service system in New York is not to be overlooked. In such a form as that adopted by Paris, it does away with much of the abuse of medical charity, concerning which a great deal has been said of late. The municipality becomes responsible for the services of the physician. Otherwise he would probably receive no remuneration whatsoever. The corporation declares itself in a very practical manner in favor of paying for medical services, and establishes a precedent which may have some bearing in time to come upon the free dispensary treatment and the gratuitous hospital accommodation. Not only will such a system protect the strangers against quackery, but will help to establish some of the younger men in the confidence of the people as capable practitioners of medicine. It has such an effect in Paris, and there is no reason why it should not be equally so here.

The collection of statistics is another important matter which must not be lost sight of in the estimation of the benefits of the night service. Many important facts of disease which are now lost will be duly collected by means of a bulletin system similar to that used in Paris. If, as Dr. Nachtel says, the number and gravity of diseases occurring during the night is so much greater than during the day, the necessity for accurate statistics need not be urged. The name of the patient is not necessarily given to the public, and is only on file at the police station to prevent confusion in the records. If it were not calculated to arouse the antagonism of the surgeons of police to this measure, we might suggest that the night medical service be in reality the police medical service, and that the present medical corps of the police be on the same footing as the medical men who volunteer to do certain services for certain fees. At present, if a police surgeon is absent in attendance upon a private case, his services cannot be obtained at the station; but when a selection can be made from a number of medical gentlemen, little, if any time, need be lost.

There does not seem to be any doubt that the Committee of the New York Academy of Medicine having the matter in charge will report favorably regarding the establishment of a night service in this city. Then will come up the questions of detail, and the means which are necessary to be taken to adapt the Parisian system to our own wants. The endorsement of the regularity of the applicants for night service should properly come from the Health Board, and the list at each station should be sufficiently large to represent every neighborhood of a precinct by an available medical man. The cost of this system can hardly be an objection to its adoption, even if such a cost were excessive. The services to be rendered must of course be necessary, and, being necessary, must be paid for at reasonable rates. But the truth is, such services are not expensive. In Paris, with a million and a half of inhabitants, the nightly calls average eleven for the whole city. The ratio for our own city would be proportionably less. Compared with the expenses of maintaining a corps of police surgeons, this outlay is merely nominal.

It is, perhaps, not so much the question whether or no it may be necessary to abolish the board of police surgeons, as it is to give the system a fair trial in a perfectly independent way. If such is done, however, there will be but one conclusion regarding the usefulness of the night service, and its applicability to all the urgent needs for prompt and efficient medical aid in all times of emergency. This fact has been proven not only in Paris, but in Berlin, St. Petersburg, Warsaw, Milan, and other cities that, following its lead, have adopted a night system of medical service.

AN EXCLUSIVE SOCIETY.

THE Philadelphia County Medical Society, we are told, has resolved that none of its papers or transactions shall be published except by a single designated firm. No reporters are allowed to convey the words of wisdom of its members, or reveal the chaste secrecy of its transactions to any other than the chosen quarter. Even the speaker himself is forbidden to give to the outside world a verbal abstract of his remarks. The Society embraces a number of eminent and intelligent gentlemen, and it is presumed that it knows what is for its own good. If the new plan pleases them, and the activity of society work is increased by limiting the means of reporting it, doubtless the profession will not mind very much, but will get along very well, though thus put out in

the cold to some extent. It is not positively essential to medical progress that the Philadelphia County Medical Society publish widely its proceedings.

MEDICAL INSPECTION OF SCHOOLS AND CHARITABLE INSTITUTIONS.

The school house is an institution which will always need careful sanitary watching. There have been great improvements in its construction, and in the care for the scholars, but defects still remain, and the ignorance of teachers and school authorities will make school-buildings continually liable to sanitary evils. In view of this, and of the recent experiments in dietary economy at the Shepherd's Fold, the suggestion that we have regular medical inspection of school-houses and charitable institutions may not seem inappropriate.

Such inspections have recently been established by the French Minister of Public Instruction, the provisions of whose circular on the subject show the opportunities for good offered by the system. In each school-house and charitable institution there is a register, with the name and office address of the medical inspector upon it. In this book he records the results of his regular inspections. These inspections must be made every two weeks. They include an examination of the whole school-building or charitable institution, including halls, playgrounds, water-closets, etc. He is to take note of the lighting, heating, and ventilating arrangements, and is to examine, physically, such of the scholars as the teacher may believe to be showing symptoms of illness, as far as possible. Finally, he will indicate the number of children absent on account of illness, together with a statement of the prevalent form of sickness in the school. All the notes thus made are recorded in the register, and a copy forwarded at once to the mayor of the city.

It will be seen that such a plan as this is fruitful of good, and that there is much in it which might be adopted in our cities and larger towns with advantage. The evils of poor light, poor heat, and bad ventilation,—of ill-arranged desks, small print, and other things contributing to defective eyesight,—might be much ameliorated by systematic medical inspection. The importance of preventing any repetition of the enormities of the Shepherd's Fold needs no urging.

ECONOMY AND PLEURO-PNEUMONIA.

The thrifty legislators of New Jersey have been finding great fault at the expense incurred during the past year in stamping out the cattle-plague. About $14,000 were spent for, as it seems to them, this trivial task of inspecting 40,000 cattle. This makes about thirty-five cents for each examination, and does not appear to be enormous, especially when it is considered that examinations form but part of the work done.

We are not acquainted with the actual manner in which the cattle inspections and quarantining were carried on. It is not impossible that the work, being novel, was not conducted in the best manner. But, however this may be, it is very short-sighted economy to cripple, in any way, the efforts that have been begun for stamping out the cattle-plague. This disease has cost England, annually, $10,000,000 for the past thirty years. We have seven or eight times as many cattle as there are in that country, and if the disease once gets a foothold among the large herds of the West, the injury will be enormous. It has been proved that active measures can stamp out the disease; and that, on the other hand, a very little neglect may cause it to spread to a most alarming extent. Retrenchment and economy in this matter, therefore, should be secondary to the securing efficient measures for protecting the State as rapidly and completely as possible from the disease.

A CITY OF HYGEIA.

Some unappreciative poet once wrote the following lines:

> "You cannot call the *Lancet* gay,
> Nor quite avoid confessing,
> That Jones 'On Muscular Decay'
> Is, as a rule, depressing."

There has been perhaps in the past some excuse for the sentiment of the first line. The pervading tone of the great London journal has been, as a rule, austere, not to say heavy. Its leaders have often been very, very deep, and at all times have had something of a quieting and soothing quality. But the *Lancet* has recently learned that away off in China there is a city of Hygeia, a town whose construction and modes of life quite come up to Dr. Richardson's most picturesque ideals, as portrayed in his recent sanitary romance, called "Hygeiopolis." This discovery has aroused the *Lancet* to a display of effervescence, of lively humor, and an editorial gayety, which is quite as electrifying as the news it furnishes us. Dr. W. Wykeham Myers, surgeon to H.B.M. Consulate at Takow, Formosa, is the discoverer of this healthful elysium. It is a seaport town and bears the name of Wen-Chow, a name having, we believe, no poetic or etymological significance, but being one which might easily and unobtrusively adorn the windows of a Chinese laundry. However, the place is all, or nearly all, that Dr. Richardson's fancy painted or the *Lancet's* humor demands. Here no morbid germs dare intrude their pestilential motions, foul effluvia never arise, health boards do not exist, the graveyard only signifies old age, and ambrosial breezes fan the systems of the inhabitants into a luxuriance of physiological activity. The *Lancet* may well be gay, and suggest in its liveliness that the Health Section of the Social

Science Association, with Dr. Richardson presiding, adjourn to this delectable spot and there make a practical study of its millennial conditions. They doubtless will furnish more details than we yet possess; and these we may expect to see served up in that highly humorous style of which the *Lancet* now shows that it is master.

BOGUS MEDICAL COLLEGES.

THE *Cincinnati Lancet and Clinic* is very commendably urging the profession of its State to make efforts for the suppression of its bogus colleges. Cincinnati has four of these, and quite takes the lead in the matter of diploma manufacture. The names of the institutions are euphonious and enticing. They are: The Physio Eclectic Medical College, The Physio-Medical College, The American Eclectic College, and The American Vitopathic College. Efforts are now making to pass a bill in the Ohio legislature, "For the establishment of a Board of Health and the Regulation of the Practice of Medicine." The bill is modelled after that of the State of Illinois, which is said to have worked so well in driving out quacks.

A bill to restrict medical practice to those persons only who are actually proved competent is now before the Massachusetts legislature, and has some prospects of success. At a hearing before the committee who have the matter in charge, it was shown that there are nine legally chartered medical colleges in this country whose diplomas are either directly sold or are given without requiring any good evidence of study or fituess for practising medicine. The names of these colleges are, besides those already mentioned: The American University of Medicine and Surgery, of Philadelphia, The Philadelphia University of Medicine and Surgery, The St. Louis Homœopathic Medical College, The St. Louis Eclectic Medical College, and the New England University of Medicine and Surgery, of Manchester, N. H.

The question of regulating medical practice by law is always a difficult one, and is especially so in large States. It can be done, however, to a certain extent, as has been shown in Great Britain, Illinois, and California. The law cannot forbid particular schools of medicine, nor should it make the attempt. It can, however, see that all those professing to practise medicine have had a medical education and possess a competent knowledge of the fundamental branches of their art. This is a thing to be desired, both for the safety of the citizen and the protection of the regular physicians. Between "modest worth" and pretentious charlatanism many people will still choose the latter, and since there is danger in charlatanism, society needs some protection against it.

RESTORING THE DUTY ON QUININE.

A HEARING was given to the American manufacturers of quinine on Wednesday last, March 3d, by the Congressional Committee on Ways and Means. The manufacturers desire to show that the removal of the duty on quinine has not lowered its price to any great extent, and that the continuance of a duty on the quinine bark makes a very unjust discrimination. They claim that the duty should be removed from the raw material, and that a duty of ten per cent. on the salts would be no more than a proper offset for the disabilities under which American makers labor.

The removal of duty on quinine a year ago excited a great deal of premature congratulation, as well as of hasty condemnation. It has been said that it did not reduce the price of the drug, and that it forced the foreign article, which is inferior, into the American market.

The only unjust thing, however, in connection with the matter was the failure to remove the duty from the raw material. The price of quinine has been lowered, and it will fall still more as the artificial cultivation increases and trade adjusts itself on other than a speculative basis. Some brands of imported quinine have been proved to be better than that from Philadelphia, and it is absurd to circulate the report that the foreign drug is all of it adulterated and inferior. The previous duty on quinine created an enormous monopoly. The repeal of this duty was a wise and judicious measure. Legislation should now simply go farther and repeal the duty on the bark. The fact that this was not done before has doubtless been injurious to the American monopolists; but, as they have had years of plenty heretofore, a year of famine will not seriously affect them.

DR. CARROLL'S LETTER ON ABUSE OF MEDICAL CHARITIES.

DR. CARROLL'S letter, concerning abuses of medical charities and the non-professional conduct of some of the gentlemen connected with our public institutions, contains some very remarkable statements. We would willingly hope that such experiences are quite exceptional, but the contrary appears to be the case. Since the appearance of Dr. Seabury Jones's letter in a previous issue, we have heard of several instances parallel to the one which he related, and now Dr. Carroll adds to the list by a plain statement of facts which are calculated to give the so-called ignorant country practitioners some concern for their reputations. Let us in charity hope that the abuses of which complaints are made are committed by the assistants, whose want of experience and lack of knowledge are the only excuses for the gross injustice done to their professional brethren.

THE NEWARK CHARITABLE EYE AND EAR INFIRMARY.—This institution has been opened to the public. Attending surgeons: Charles J. Kipp, M.D.; Wm. Rankin, Jr., M.D.; and T. Y. Sutphen, M.D.

Reviews and Notices of Books.

THE STUDENT'S GUIDE TO DISEASES OF THE EYE. By EDWARD NETTLESHIP, F.R.C.S., Ophthalmic Surgeon to St. Thomas' Hospital. Philadelphia: H. C. Lea. 1880. 8vo, 309 pp.

This book was written, as the author states in his preface, for the use of students during their hospital course. After a careful perusal of the work, we believe it safe to say that it will serve this purpose as well as, if not better than, any of the numerous manuals which have appeared.

Commencing with the means of diagnosis and the methods of examination, the attention is carefully directed to the symptoms and appearances which should be noted. In the second or clinical division, the various diseases and injuries, with their treatment, are carefully described. A third and very important division—diseases of the eye in relation to general diseases, condensed in a great measure from Förster's monograph in the Augenheilkunde of Graefe and Samisch—closes the work.

The book is written in a careful and logical manner, and, though extremely concise, we have failed to notice any evidence of ambignity. It is rendered more compact and homogeneous by frequent references, by page number, to other portions of the work; repetitions are thus avoided, and we have been surprised to find how much information our author has succeeded in conveying in so small a space. Though apparently well acquainted with the German literature of his subject, he has shown his good taste by frequent quotations from the admirable writings of his own countrymen. We were particularly impressed with the lucid manner in which glaucoma is discussed. In addition to several typographical errors, the printer has inverted the figure No. 85. A careful study of the book will well repay the general practitioner, even though it should serve only as a *monitor*. It is particularly useful in the latter regard, as the subject of treatment is presented in a thoroughly conservative manner.

ANNALS OF THE ANATOMICAL AND SURGICAL SOCIETY. Volume I. 1878-79. Published for the Society, 28 Madison street. Brooklyn, N. Y. 1879. Pp. 102.

THE Anatomical and Surgical Society was organized for the promotion of the study of anatomy, surgery, and pathology, under the laws of the State of New York, in 1879. It consists of twenty-four members, of whom eleven fill the twenty-one offices of the organization. In Art. XIV., Sec. 1, we find the following additional object or end in view, to which we wish to draw attention: "Whenever the council shall judge that it is advisable for the more complete furtherance of the objects and purposes of this Society, as stated in the articles of incorporation, they shall proceed to the organization of a medical school, which shall be incorporated in accordance with the laws of the State of New York.

"SEC. 2.—The members of the council of the Society shall be members of the board of trustees of the medical school of the Society. . . . .

"SEC. 3.—In the incorporation of this school it shall be provided that, at the election of trustees, resident members and patrons of this Society, and none other, shall be entitled to vote."

The volume, with the exception of the by-laws, consists of a reprint from the "Transactions of the Kings County Medical Society," in whose monthly issue the proceedings of the "Anatomical and Surgical Club" are printed. They are collected and issued in the present volume. The cases, as a rule, are well reported and interesting, but we regret to see here what we so often find in the report of the transactions of other similar organizations, that cases are reported and put on record before the final result has been reached, thus they are very deficient in the one important item. If a case is worth putting on record it should be fully reported, and the condition of the patient, after completion of treatment, given.

The volume is well published, and reflects credit on the industry of the individual members of the Society.

BERICHT ÜBER DIE ZWÖLFTE VERSAMMLUNG DER OPHTHALMOLOGISCHEN GESELLSCHAFT. Heidelberg 1879. 8vo, 208 pp. and four lithographic plates.

This society is one of the most flourishing in the world, and we look back with pleasure to happy hours spent in listening to the papers and discussions of the genial members. Dr. H. Cohn's papers showed that the distance at which most colors could be recognized was very much greater by electric than by bright day light. Dr. Berlin found that, in disturbances to vision after injuries of the skull, these disturbances were mainly due to fracture of the base, and more especially to injuries of the optic canal. The latter condition was found in 60 per cent. of fractures of the base. The lesion was generally one-sided. In 78 per cent. of these fractures of the canal, hemorrhage into the sheath of the optic nerve was found, and this was never noticed without the fracture of the optic canal. Dr. Rählmann proposes the use of conical glasses for keratoconus, with encouraging results. Dr. Knies gives the result of the autopsy of an eye with iritis serosa, which elicited a lively and interesting discussion concerning the propagation of sympathetic inflammation. Dr. Samelsohn presented specimens of tubercle of the iris, with the degenerated portion of which he had succeeded in successfully inoculating the eyes of rabbits; these animals presented, usually after five weeks, the same growths on the iris, and also in different portions of the body. Dr. Jany reports some successes from sclerotomy in glaucoma, and also mentions some cases where iridectomy proved effective after the former had failed to relieve. The discussion elicited a number of similar experiences. Eserine is losing ground. Prof. Dor reports on the use of benzoate of soda in purulent ophthalmia. He claims that it will prevent ulceration of the cornea when used before this has commenced. Dr. Meyer claims the same for boracic acid, and Dr. Nieden adds that this latter agent will aid in the rapid dissolution of diphtheritic exudations. Stilling observed that, as a rule, the prognosis is favorable in cases where the cornea remains intact after the fourth day, with no other treatment than careful and constant cleansing. Dr. Steffan reports an extremely rare case of acute transverse dorsal myelitis (diagnosis made by Erb), which was preceded by an exudative optic neuritis some five months before the first spinal symptoms appeared. The neuritis exhibited itself in four different exacerbations, two of which reduced both eyes to complete blindness. The patient recovered from the myelitis and neuritis. V. was restored to R. $\frac{4}{5}$, L. $\frac{4}{6}$, with free fields, but green blindness remained. Dr. Talko reported the case of a soldier, twenty-one years of age, who had $V.=\frac{15}{15}=3$. Dr. Th. Leber is of the opinion that all inflammations of the interior of the eye, excepting such as can be traced to injury or similar local

causes, are due to systemic disturbances, conveyed for the most part by the circulation. He points to the suppurative choroiditis and iritis of pyæmia, puerperal fever, ulcerative endocarditis, etc., and to those rare ones coincident with typhus, pneumonia, and the like; to the hyalitis of recurrent fever, the eye complications of syphilis, tuberculosis, and rheumatism. He considers the gonorrheal rheumatism and iritis to be of systemic origin. Meyer referred to the cases of uveal tract inflammations observed in women with uterine and menstrual disturbances. Sattler claims excellent results with antiseptics in the treatment of keratitis. A solution of boracic acid three parts, salicylic acid one part, water one hundred parts, was used to best advantage. He covers the eye with absorbent cotton soaked in the above solution. He uses the actual cautery to check ulcus serpens, and claims that it is almost painless, easy of application, and absolutely certain to arrest the progress of ulcus rodens. He considers Saemisch's operation to be unnecessary. The papers of Donders and Snelling on color-blindness showed that this subject is still in an unsettled condition, and that Holmgren's method of detecting color-blindness is not without defects.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, February 11, 1880.

DR. T. E. SATTERTHWAITE, PRESIDENT, IN THE CHAIR.

DR. SHRADY presented a specimen of cancer of the breast, on behalf of a candidate for admission to the Society.

DR. CARPENTER also presented a specimen for a candidate.

DILATATION OF SEMINAL VESICLES.

DR. HEINEMAN presented a specimen of dilatation of both seminal vesicles, removed from a patient who died at Roosevelt Hospital. No history had been obtained during life. The seminal vesicles were the seat of cystic degeneration; measured 2 in. in length, 1½ in breath, and ¾ in thickness. They contained a brownish mucoid fluid, which could by slight pressure be forced through the ejaculatory duets, and which, upon microscopic examination, revealed the presence of well-developed spermatozoa.

Medical literature recorded, up to 1879, but three similar specimens, one referred to in "Pitha u. Billroth," in Göttingen, and two in possession of Englisch, of Vienna. Drs. E. Mason, G. L. Peabody, and I. Adler, of this city, had personally communicated that they each had met with a similar specimen.

Englisch, who had written upon the subject of cysts of the posterior wall of the bladder, divided them into four groups. One found as single cysts in the median line of the posterior wall of the bladder, low down; a second connected with either vas deferens; a third, cysts in the prostate gland, being really only a dilated sinus pocularis; and, fourth, cystic degeneration of the seminal vesicles.

The first three varieties might be congenital, the second and third were unilateral.

The fourth variety is usually the result of inflammatory action, and is generally bilateral.

In the specimen the thickening from inflammation of the vasa deferentia seemed to have been propagated to the seminal vesicles, and confirmed the views of Englisch. Whether such specimens were as uncommon as the literature would seem to indicate, was opened to serious doubt when it was remembered that the posterior wall of the bladder was rarely examined in the course of post-mortem investigations.

DR. MASON remarked that the specimen which he found was in a dissecting-room subject.

INTRA-LIGAMENTOUS OVARIAN CYSTOMA, WITH PAPILLOMATOUS GROWTHS EXTENDING THROUGH THE CYST INTO FUNDUS UTERI.

DR. C. C. LEE exhibited the uterus and appendages, together with a tumorous mass, showing the rare condition of papillomatous degeneration of an ovarian cyst. The specimens were removed from a maiden, aged forty-eight years, who was admitted to the Woman's Hospital, January 16th. She commenced to menstruate when she was fifteen years old, and continued to do so until forty-five, when the menopause occurred. This was three years ago. Last spring she commenced to have an irregular flow, which increased in quantity during the summer and was attended with pain. About this time she was examined by a physician, who, somewhat misled by the confused presentation of symptoms, thought that there were some grounds for suspicion of pregnancy, and sent her to Dr. Lee. Dr. Lee examined the patient accordingly, and discovered anteversion of the uterus, with elongation of the organ, a large multiple subperitoneal fibroid, and a condition which he assumed to be pelvic cellulitis in the posterior cul-de-sac. The parts were very tender on pressure, but at no point were there any evidences of fluctuation. The patient was placed upon the hypodermic injection of ergotine, and in the beginning of the winter applied for admission into the Woman's Hospital. After her admission a large-sized uterine sound was introduced on several occasions. The withdrawal of the instrument was followed each time by a more or less copious discharge of pus. Dr. Lee supposed that this was due to the penetration of an abscess, caused by the breaking down of one of the uterine fibroids. This opinion was afterward found to be an erroneous one.

In the course of two or three weeks it became evident that she could receive no benefit from treatment, and she was accordingly discharged from the hospital. On being informed that nothing more could be done for her she became worse, and in three days thereafter died rather suddenly, as the result of extreme asthenia, slightly heightened temperature, and without any evidences of fresh abdominal disease.

At the autopsy all the organs were healthy, excepting those in the pelvis.

Peritoneum.—Both visceral and parietal layers of the peritoneum were coated with yellow fibrin and pus. The peritoneal cavity contained about a quart of fluid, turbid, thin, and purulent, without offensive odor. In certain places the purulent accumulations were encysted by fibrinous adhesions between the coils of the intestines.

A large myoma, growing from the fundus uteri, projected from the brim of the true pelvis into the peritoneal cavity. By the growth of the myoma, the uterus was lengthened so that its fundus projected above the pelvic brim. A membrane (which, in fact, was the upper wall of the cyst to be described) stretched from the uterus to the rectum, on a level with the brim of the pelvis; so that a recto-uterine peritoneal pouch did not exist; over the surface of this membrane the peritoneum, intimately blended

with it, passed small round hole, about one-quarter of a centimetre in breadth, existed about the middle of this membrane, through which a brownish, purulent fluid escaped on pressure. This fluid came from the cyst cavity.

Upon removing the pelvic viscera *en masse*, it was found that the space between the uterus and the rectum was occupied by a cyst, extending from the pelvic brim to about two centimetres above the anus. It occupied all the available space in the true pelvis.

The right Fallopian tube, ten centimetres in length, lost itself, at its abdominal extremity, in the upper wall of the cyst. At the insertion of the Fallopian tube into the cyst wall, the latter presented a nodular thickening.

Near the uterus, for a distance of six to seven centimetres, the right tube was connected with the cyst wall by a portion of the broad ligament (mesenterium tubæ); from this point the tube became incorporated with the cyst wall.

The left Fallopian tube was free, fourteen centimetres in length; its fimbriæ were enlarged, vascular, and cystic, looking somewhat like œdematous *charamarilli*.

The left ovary was five centimetres long, one centimetre in vertical measurement, its surface covered with little ecchymoses. The zona vasculosa contained a number of little cavities about the size of a split-pea, with firm white walls. Some of the cavities contain solid yellow plugs.

There was no trace of the right ovary, unless the nodular thickening in the cyst, above mentioned, corresponded to it in part.

The right ovarian ligament, which was connected with the cyst wall, was thickened and shortened, and ended in the lower portion of the *mesenterium tubæ* of right side.

The cyst itself was fourteen centimetres in vertical measurement, and thirteen in breadth. It seemed to have grown first in between the layers of the broad ligament on the right side, and thence into the connective tissue between the vagina and rectum, extending behind the uterus and vagina.

On the peritoneal covering of the tumor, three distinct layers were visible: 1st, an outer serous covering; 2d, a middle fibrous tunic; 3d, an inner, thick, mucous covering. Below this the wall was composed of a single, thick, outer, fibrous coat, continuous with the surrounding cellular tissue, and an inner mucous coat.

The inner surface of the cyst was thickly beset with numerous papillomatous excrescences, of extremely soft consistence, so that large masses were readily detached from the wall. These "cauliflower-like" growths were large, and nearly filled the lower half of the cyst. The cyst contained, in addition, a brownish, thin fluid.

At one point the papillomatous growths had made their way through the intervening cyst wall and muscular wall of the uterus into the uterine cavity at its upper portion, into which they project, and presented much the appearance of primary cancer of the fundus uteri.

In the upper left border of the cyst wall was a solid nodule, about the size of a hen's egg, firm, with yellowish spots in its substance (carcinoma?).

The length of the uterine cavity was fourteen centimetres, of which six belonged to the cervix. From the fundus projected a large, firm, intramural myoma, twenty-seven centimetres in circumference and eleven centimetres in height. In the anterior and left border of the lower portion of the uterine wall was another myoma five by four centimetres.

The lumbar glands were enlarged, and over the abdominal aorta, at about the origin of the superior mesenteric, was a mass of the enlarged glands, and a tumorous mass, presenting on section a soft, reddish appearance, similar to that of the intracystic papillomata, from which it was doubtless a metastasis. No other metastases were present.

The intestines and stomach presented nothing noticeable, except a moderate hypertrophy of the mucous coat of the rectum, in consequence of the pressure of the tumor farther down.

In conclusion Dr Lee remarked that one of the doubtful questions now discussed by gynecologists was the propriety of "aspirating" the pelvic tissues in cases where pelvic abscesses were suspected to exist as a complication of pelvic cellulitis, but where the abscess, being high up and surrounded by masses of organized lymph, can be *suspected* only. The weight of opinion was tending in favor of the practice, and his experience led him to think it correct. This case, on the contrary, illustrated the confusion which might occasionally arise even from successful aspiration, as it would have been impossible either to drain the cyst, or to prevent such infiltration of the tissues as would have been rapidly fatal.

Dr. Bunnon stated that he witnessed an autopsy upon a patient of Dr. Buchler, where there was not only a papillomatous degeneration of the ovary, but of different parts of the peritoneum as well. The ovarian tumor was mostly solid, but the inner walls of some of the cysts were covered with the papillomatous growth.

Dr. Lee stated that he had seen similar developments on the peritoneum, in connection with malignant disease of the ovaries. He remarked that at one time papilloma and epithelioma were interchangeable terms, and were only distinguished from each other in regard to malignancy by subsequent pyæmic changes.

Dr. Satterthwaite remarked that he had never found any microscopical differences between the two forms of growth, and clinically they were not distinct from each other except in secondary manifestations in other parts of the system.

Abscess of Liver—Ulcers of Mucous Membrane of the Large Intestine.

Dr. Rhoton presented a specimen of the above, with the following history:

Alex. Mousty, æt. 48; France; married; shoemaker; admitted to St. Luke's Hospital, December 18, 1879; service of Dr. Andrew H. Smith.

Five months before admission patient felt something give way in the region of the liver. Since then he had pain at this point, and had much diarrhœa. There had been slime in his passages, but no blood. Appetite was voracious; was much emaciated; urine normal; physical examination showed nothing. On December 23d enlargement of the liver was made out. Consultation was held December 30th. With one exception it was believed that abscess of the liver existed. This gentleman believed it to be either hydatids or malignant disease. The tumor was aspirated and about an ounce of bloody fluid obtained. On microscopic examination by two members of the attending staff, this fluid was found to contain leucocytes, red blood-corpuscles, detritus, and some large cells, which were believed to be liver-cells. On January 6th, when fluctuation had become distinct, the tumor was aspirated and twenty-eight ounces of bloody, purulent fluid withdrawn. This, on microscopic examination, proved to be the same as that

above mentioned. Up to this time the diarrhœa had continued, the patient having from four to eight thin, slimy, olive-green passages daily. Pil. opii et camph. was now given every four hours, and by it the diarrhœa was controlled. When the pills were stopped, or reduced in frequency, the diarrhœa returned, again to be controlled by their administration. This condition continued up to the time of the patient's death. On January 13th there was another consultation. One distinguished member of the consulting staff held that there had been local peritonitis, followed by an abscess between the liver and the chest-wall. On January 17th the tumor was again aspirated, and thirty-six ounces of fluid, same as at other operations, removed. After these operations the patient experienced almost complete relief from pain; but all the time was growing weaker and more emaciated. He was urged to allow a permanent opening to be made, but refused. On January 31st a compromise was made. A trocar and canula, in size between 7 and 8, French urethral measure, attached to the aspirator, was introduced and thirty ounces of fluid withdrawn. The aspirator was then detached, and through the canula a piece of doubled silk ligature, carbolized, was introduced, and the canula withdrawn. It was expected that this would act as a drain, and a permanent opening would be gained. This, however, did not occur, no discharge escaping about the silk. The patient grew weaker, and on January 4th died from exhaustion.

At the post-mortem examination, twenty-five hours after death, the peritoneal cavity was found to contain sixty ounces of turbid serum, with considerable sized flocculi of fibrin floating in it. The liver was enlarged and fatty. There were firm adhesions about the points where the needle had penetrated at the aspirations, also laterally to the chest-wall, to the right kidney, and in other places. On removing it the liver substance gave way at the point where it was attached to the chest-wall laterally, and a large quantity of thick pus and masses of necrosed liver-tissue flowed out. The abscess occupied about two-thirds of the right lobe; its walls were ragged, and thinnest at the point where it gave way and next the kidney. About an inch and a half of the silk tent, introduced at the last operation, was found extended into the cavity of the abscess. The ileo-cæcal valve was thickened, and just above it was a Peyer's patch that looked cheesy. The mucous membrane of the colon and rectum was thickened, congested, and studded with ulcers, in size from a pin-head to a split-bean. They were found in greatest number in the caput coli, decreasing somewhat in number toward the sigmoid flexure. Below the sigmoid flexure they were comparatively few in number, and the congestion and thickening of the mucous membrane was much less than further up the gut. All the other viscera were healthy except the lungs, which contained small points of fibrous phthisis at the apices.

Dr. Ridlon stated in conclusion that he would like to ask, if there was ever any beneficial results from aspiration in cases of this kind, if it would have been possible to induce healing of the ulcers in the colon by topical applications to the few ulcers in the rectum?

Dr. Lee asked if the abscess of the liver showed any pyogenic membrane, and was answered in the negative. He stated that his reason for asking the question was to remind the members that when the pyogenic membrane was present, mere aspiration was not apt to cure the abscess. He referred to a case of hepatic abscess, under his own care, in which the disease originated in a pelvic cellulitis. The patient died in due time, and the liver was presented. In that instance a distinct pyogenic membrane was found. He believed that such a condition of things usually obtained in abscess of the liver, although the contrary was stated by those who advocated aspiration. If a pyogenic membrane existed, there did not seem to be any chance of healing the abscess, unless by free drainage through an incision, and the obliteration of the sac by granulation.

Dr. Wyeth remarked that free incision had been practised in several cases with success. He thought that it was exceedingly difficult to draw pus through an aspirator.

Dr. Wyeth asked if there were any cerebral symptoms in Dr. Lee's case, and received a negative answer.

Dr. Satterthwaite stated that the material which filled the cavity in Dr. Ridlon's case was sloughy and gangrenous, and consequently could not have been drawn through an aspirator.

Dr. Lee referred to a paper on abscess of the liver, by Dr. Davis, published in a recent number of the *New York Medical Journal*, and in which free evacuation was attended with success. A very large number of cases were recorded.

Dr. Putnam-Jacobi stated that Dr. Davis's cases occurred in Mexico, were not associated with colitis, and were not metastatic in character. The point he made was to open immediately with the trocar, instead of provoking adhesions by the previous use of caustic. He then claimed that when collapse of the abscess occurred, there was no chance of disturbing adhesions, and thus inviting peritonitis.

Dr. Wyeth remarked that such an operation was performed upon the late Gen. Breckenridge, and was supposed to have caused his death.

Dr. Briddon had seen a case in which free incision was followed by recovery.

Dr. Mason had met with three, in which incision was made after the presence of pus was detected by the aspirator.

Dr. Satterthwaite believed that free incision in Dr. Ridlon's case would have given a better chance than aspiration. The abscess was also interesting as occurring in connection with dysentery. The association of the two diseases was not common in this latitude.

Dr. Carpenter had seen two cases of hepatic abscess occurring in persons who had chronic dysentery.

FIBRO-SARCOMA OF ORBIT, WITH CYSTOID DEVELOPMENT.

Dr. C. S. Bull presented a specimen of fibro-sarcoma of orbit, removed from a man æt. 49, with the following history:

The eye had been enucleated twelve years before for an injury, and the man had noticed nothing wrong until about a year before I saw him, when he began to have some difficulty in retaining his artificial eye in place. This difficulty increased until it could not be introduced, and then he began to think his orbit was filling up. When I saw him the orbit was filled up to the level of the bony margin by a subconjunctival growth, which was covered by smooth conjunctiva, was painless and slightly movable. The growth was removed entire with the conjunctiva covering it, instead of dissecting up the latter. It was easily removed, there being no firm adhesions anywhere except at the apex of the orbit. It proved to be quite vascular and very brittle. No trace of the optic nerve is visible, but some of the sections examined show traces of the muscles of the eyeball. Examination showed the growth to be fibro-sarcoma, though

the cellular element formed the main bulk of the tumor. There is also a tendency to the development of cystoid cavities, traversed by trabeculæ and more or less filled with cells, these latter being of the small, round variety, while the main mass of cellular elements were fusiform.

This is not at all a common condition of affairs in the recurrent fibroid, and hence I am not inclined to designate this tumor as such. Its origin is to me as yet unexplained. There is no history of any tumor in the eye enucleated. The growth in the orbit did not become perceptible to the patient until nearly eleven years after the removal of the eye. And I do not feel inclined to attribute its growth to the irritation caused by the presence of an artificial eye.

HERNIA STRANGULATED IN THE CANAL OF NUCK, DIVERTICULUM, OFFSET, OR DOUBLE SAC—"HERNIE EN BISSAC" OF THE FRENCH WRITERS.

Dr. Briddon exhibited a specimen of the above, and remarked: On the night of the 29th of January I was requested by Dr. William C. Hunter to see one of his patients, and from him I received the following history:

Cornelia Carunn, æt. 52, widow, and by occupation laundress. Twenty-five years ago, without any assignable cause, she found herself the subject of right inguinal hernia. From time to time since its appearance she has had attacks of more or less complete strangulation, which have been overcome by taxis applied either by herself or medical men. She remembers having been told by one or more of the physicians who saw her in the attacks, that the tumor did not wholly disappear; "something remained that would not go back." During a fit of coughing on the morning of the twenty-ninth, the bowel descended and she could not reduce it; a physician near at hand applied the taxis and failed. Dr. H. saw her at 4 P.M. same day, at which time she was suffering much pain and had vomited once. Herniæ tumor, size of a goose-egg, was found in the canal of Nuck; it was tense and moderately tender on handling; near the neck of the tumor, and externally to it, was found a second protrusion the size of a large chestnut, distinct from the larger mass. This was regarded as the latest descent, and the taxis was first applied to it with success, as was manifest to the doctor and patient. The larger mass resisted all proper manipulation to effect its reduction. Anæsthesia was not employed, the patient having a mitral systolic murmur.

I (Dr. Briddon) saw the patient at about seven P.M., and found things precisely as represented by Dr. H. The amount of fat about the region involved precluded a very accurate estimate of the anatomical relations of the parts; the right side of the mons and labium was larger than the left, and appeared to contain a doughy mass that certainly was not intestine; and about an inch and a half to the outside of the spine of the pubes was a deep-seated globular swelling, about an inch and a half in diameter; dissecting the coverings from this latter mass was difficult, so intimately were they incorporated with the sac, which was itself much thickened. Both the doctor and I had suspected that this was a protrusion from the femoral ring, but it was now found to be above Poupart's ligament. The sac was opened and found to contain nothing but omentum. After dividing the stricture above, to my surprise I found it impossible to reduce the mass, so I ligated it high up and cut it off; but even then I failed in my efforts to replace it. Passing my finger well up and around the stump of omentum, demonstrating that there were no adhesions, I detected an opening in the neck which passed into another sac, and through this the finger could be passed downward into the labium. This pocket was evidently in the canal of Nuck, and was filled with a mass of adherent omentum. On shutting it down the protrusion was found firmly connected to the fundus of the sac by two strong cord like bands. These were divided with the knife; the whole mass was transfixed with a double ligature and cut off. The contents of both sacs were now found to be continuous, and there was no longer any difficulty in returning the stumps into the abdominal cavity. The wound was closed in the usual manner, and the patient was placed under the very moderate influence of opium.

I saw Dr Hunter eight days after the operation, and he informed me that she was doing very well.

INTERNAL URETHROTOMY IN A WATER-LOGGED ALBUMINURIC SUBJECT. DEATH. POST-MORTEM REVELATIONS REGARDING MAISONNEUVE'S URETHROTOME.

Dr. Briddon presented the male genitals removed from the following case:

John Bradley, fifty-four years; brown skin; cook; widower; was admitted to the hospital department of the Colored Home, January 15, 1880. Family history unimportant; has been a hard drinker; had malaria when young, but no rheumatism; enjoyed good health until two years ago, when he began to suffer from headache, backache, and nausea; he then noticed gradually increasing swelling of the lower extremities; subsequently he had cough, with occasional expectoration of blood, and was annoyed with shortness of breath and palpitation of the heart; for some time he had experienced difficulty in emptying his bladder, the stream being very small and the desire to urinate occurring every hour during the night. At the time of his admission his urine contained thirty per cent. of albumen.

Physical examination—Heart.—Aortic valves close harshly; left side of chest much sunken in and almost motionless; percussion over right lung fair; left slightly dull over whole surface; right dull at apex posteriorly, otherwise normal; left respiratory murmur suppressed, except in interscapular space, where it is rude, dry, and moist. Râles heard over whole surface of lung.

Marked œdema of lower extremities.

Prostate normal; No. 1 olive-tipped soft bougie can with difficulty be introduced into the bladder, conveying the impression that a number of strictures existed in the penile portion of the urethra.

Diagnosis.—Old pleurisy, chronic renal congestion, urethral stricture, cystitis.

Jan. 5th.—Dr. Briddon expressed the opinion that there was no possible chance of amelioration of his bladder difficulties but through either cystotomy or urethrotomy, fully recognizing the danger of any operation in such a subject. Internal urethrotomy was done with Maisonneuve's instrument, and No. 30 French sound was passed into his bladder. On the 6th, he had suppression which lasted twelve hours, when the renal secretion was reëstablished, but the difficulty in his breathing increased and he died on the 9th, in a condition of uræmic coma.

Autopsy, nineteen hours after death.—Body fairly nourished, œdematous; rigor mortis marked. Brain not examined. Heart hypertrophied; 22 ounces in systole; cavities filled with dark clots; aortic valves slightly thickened at their bases; aorta contained a few fatty patches; considerable serum in præcordial sac.

Lungs.—Right, in condition of hypostatic congestion; left, the pleural sack was filled with clear serum, compressing the lung upward and backward, being carnified. Liver amyloid, spleen normal, kidneys small, contracted, and granular.

Penis was opened along the dorsum; the mucous membrane was found incised along its inferior surface from the meatus to the bulbous portion.

In this connection Dr. Briddon referred to a specimen which he had presented some years ago to the Society, in which the same condition of the urethra had been found after operation with Maisonneuve's instrument. These are the only two cases in which he had been able to demonstrate it. Death, in both cases, occurred from causes that could not be controlled. He had used the same instrument in a large number of cases in which there was no kidney complication, and with the happiest results, but he had no doubt that if the urethras could have been examined, the same long incisions would have been found.

He would also refer to an operation that he had done in the same institution on the same day that the internal urethrotomy was done. There was a patient in the hospital prostrated with recent right hemiplegia; he had a stricture that was regarded as impassable, and his bladder was for some time aspirated twice a day. On January 5th, he was etherized, an external urethrotomy was performed, and he had no bad symptom whatever following the operation.

Dr. Wyeth exhibited portions of tumor removed from the right breast of an unmarried woman. The patient was first operated upon in 1878, by Mr. Pollock, of London, who removed a tumor from her breast. Recurrence took place six weeks after. In January, 1879, it had attained the size of a fist. Dr. Wyeth removed it at that time, cutting clear of the growth and in sound tissue. The patient had done well since the operation, there being no return of the disease. He was inclined to believe that the growth was a simple adenoma, but could not understand how it could reappear after the complete excision of the breast, and when there was no glandular tissue from which it could spring.

AMPUTATION IN UTERO.

Dr. Blake presented a specimen of amputation in utero, with the following history:

It was a portion of the tibia and fibula of a boy of twelve, which I amputated some years since, for painful stump, with a perfectly satisfactory result. You see here the nerve which probably was the seat of the neuralgia. Now, there would be nothing in this case worthy of especial attention were it merely a specimen to serve as a text for impressing the surgical lesson that one can hardly be too liberal in the matter of flaps in an amputation. But I was informed by the family, and have every reason to believe, that this amputation was congenital, and took place in utero (as they believed), in consequence of a disagreeable impression made upon the mother early in gestation by the sight of the stump of an amputated humerus.

It is so long since this occurred, and as in the hurry and worry of a provincial practice I kept no notes of cases, I cannot remember whether there was anything but the stump at birth, but I have the impression that there was, and that there was a very ill-developed ankle and foot, attached by a thin flap of skin only sufficient to allow some circulation and nerve-power to pass, but only enough to sustain the most rudimentary condition of development of all the parts.

SUPPURATIVE FIBRINOUS PLEURITIS SUPERVENING UPON BRONCHO-PNEUMONIA IN A CHILD.

Dr. Putnam-Jacobi presented the lungs removed from a child three years old. The patient was brought to the dispensary of the Mount Sinai Hospital, January 30th, and was found to be suffering from quite extensive pneumonia of left lung, and had a temperature of 104° F. She saw the child only three times during its illness, death occurring February 10th. The last time the child was brought to the dispensary it was very feeble, temperature 101°, tubular breathing, which was very feeble over the base of right lung. The mother was not in a condition to take good care of the child, consequently it was ill-fed and did not receive the proper amount of stimulants. It was partly due to this circumstance, and partly to the fact that inflammation supervened upon whooping-cough, that an unusual result of inflammatory broncho-pneumonia occurred.

The mother, not being able to bring the child, reported that it was better and very quiet. The latter state was, of course, ominous of evil. In the evening of that day it was seized with a convulsion, which was repeated during the night, death occurring on the morning of the 10th. At the autopsy the brain was very much congested. The veins of the middle and posterior lobes of both hemispheres were much distended. There was also some distention of the veins of the inferior surface of the cerebellum. As was anticipated, the heart contained an antemortem clot. The clot was white, tough, and fibrinous, and occupied both cavities. Dr. Jacobi estimated that it had formed during the day previous to death, and at the time when the convulsions marked a change in the cerebral circulation. There was also a large fibrinous clot extending into the pulmonary artery and closely adherent to the papillary muscles of the right ventricle. Extending over the whole inferior lobe, and part of the upper lobe of the left lung, was a thick fibrinous effusion, infiltrated with pus. The underlying lung-tissue was somewhat collapsed, accounting for the diminished tubular breathing heard during life. The upper portion of that lung was in the condition of ordinary broncho-pneumonia. In the right lung there were nodules of broncho-pneumonia, with emphysema.

The point of interest in the case was the occurrence of suppurative fibrinous pleuritis, supervening upon broncho-pneumonia, in a child.

Correspondence.

ABUSE OF MEDICAL CHARITIES, AND UNPROFESSIONAL CONDUCT OF CLINICAL EXAMINERS.

To the Editor of The Medical Record.

Sir:—The letter of Dr. Seabury Jones, in your issue of February 14th, touches an abuse of which glaring examples are almost daily occurring; and, if the time be ripe for its discussion, I beg leave to contribute to the harmony of the occasion a few out of many illustrative instances which have fallen under my notice. Names, dates, and places are suppressed for the same reasons that Dr. Jones gives.

I. A boy, the son of well-to-do tradespeople, suffered a comminuted fracture of the lower end of the humerus, extending into the elbow joint, and giving

rise to severe synovitis. He was attended by a thoroughly competent physician, who, in view of the gravity of the case, called in consultation Dr. W. C. Anderson, a surgeon whose reputation is familiar to most of your older readers, and, under the joint care of these gentlemen, recovery ensued with a more useful joint than is commonly seen after similar injuries. Some months afterward, the parents, incited by village gossips, took the patient to a college clinic in New York, whereat the officiating "Professor" is alleged to have stated that the case had been ill treated, and that the only resource to escape crippling for life was to let him, the said "Professor," refracture the arm and set it properly. Making every allowance for possible exaggeration on the part of the parents, it is certain that this adverse opinion was forcibly enough expressed to induce them to threaten a suit for malpractice, and consequently I was asked to examine the boy. There had apparently been a transverse fracture, with separation of the condyles of the humerus; a good deal of exudation and induration existed about the joint; but the general relations of the parts were well preserved, and he could easily place his hand upon the back of his head, and extend his arm to an angle of about 130°; a result which I think most surgeons would deem very satisfactory, considering the character of the injury, and the history of the case. Not only was grave injustice done to an educated and painstaking physician in this case, but the people to whom such a damaging opinion was given, were in no respect fit recipients of "advice gratis."

II. A patient under the care of one of my friends, who is a skilled gynecologist, was induced to apply at a well-known special hospital; her trouble being an uncomplicated anteversion of the uterus. One of the assistant surgeons made an examination, introduced a pessary, and cautioned her on no account to permit any "country doctor" to treat her, as none of them knew how to use such instruments.

III. An elderly woman, with a forward luxation of the shoulder, was attended by a neighboring practitioner shortly after the accident. Much inflammation and pain supervening, I saw the case in consultation, and satisfied myself that the luxation had been reduced, and adequate retentive means adopted. As is usual among the lower classes, it appears that her physician's directions were neglected, and she passed from under his observation for some weeks, when she again "turned up," with a menace of a suit for damages, based upon the alleged opinion of another assistant surgeon at a city hospital, who, as she averred, told her that her shoulder had never been properly "put in joint." I may add, that about two months after her hospital treatment, she was admitted to the Smith Infirmary, on Staten Island, where I assisted in again reducing the luxation, the head of the humerus being firmly fixed under the clavicle. I have little doubt that since then the displacement may have recurred, and afforded further occasion for a hospital criticism on suburban surgery.

Aside from such explicit or implied condemnation of private practitioners (which is not wholly confined to hospital and college precincts), it occasionally happens that "out-departments" and clinics are made to conduce to the pecuniary profit of some of the officiating staff, where inquiry has shown that the patient is not in destitute circumstances, but has not been pushed to the inquisitorial extent of ascertaining whether the case were already under treatment or not. More than a few office fees have been drafted from college waiting-rooms by shrewd young gentlemen who were fortunate enough to be on the "clinical staff" of the attending professor; indeed, I was once informed by one of these rising lights that the facilities for thus building up a paying practice constituted the chief attraction of his position. I have even known of a distinguished professor himself transferring from his clinic to his private emolument a patient whom he found able to pay a fee, and who had been paying fees to another physician. And dispensaries offer a still wider field for this sort of exploration; e. g., a mechanic's wife, having an elongated cervix uteri and "pin-hole" os, went to one of the up-town dispensaries for advice. The physician told her that her case required more attention than he could give to it at the dispensary, and required her to come to his office, not omitting to mention his charge per visit. She went to him several times (paying a fee on each occasion), and was treated by means of a tonic mixture and the introduction of a Smith's pessary, for which he charged her one dollar extra (a profit of 100 per cent.). It is scarcely necessary to observe that, beyond an increase of vaginal leucorrhœa, no great alteration of the morbid condition was effected by this means.

Examples of both forms of abuse of medical charity might be multiplied; but I have trespassed far enough upon your space, and leave to others the extension of the list.

I am, sir, yours, etc.,

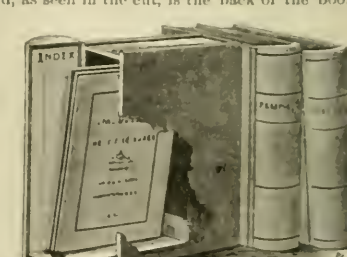
ALFRED L. CARROLL.

NEW BRIGHTON, N. Y., Feb. 20, 1880.

New Inventions.

A NEW PAMPHLET-BOX.

THOMAS L. CLACHER, of this city, has devised a pamphlet-box, which will be very useful for library purposes. It is made to represent a handsomely bound book, but it is in reality a box with a spring lid. This lid, as seen in the cut, is the back of the book, and



works by a hinge arrangement. It shuts of its own accord, by means of a steel spring concealed and embedded in the cover. The bottom of the box on which the pamphlets rest is movable, and, when drawn out, brings the contents of the box with it. By this means, also, the lid is kept open. On the inside of the lid is an index. The mechanism is very simple, fulfils all the indications required, and makes it possible to consult the contents of the box without its removal from the library shelf. It is decidedly the best thing of the sort we have seen, and, being made of different sizes, can be used for any kind of pamphlet or periodical.

A MAGNIFIED INDEX FOR THE FEVER THERMOMETER.

J. Gall & Co., of this city, have made a very useful improvement of the fever thermometer. On account of the fineness of the index of the ordinary thermometer there is great difficulty in reading it, and not infrequently it is impossible to estimate the fractions of a degree. Gall's new thermometer obviates these difficulties by simply fusing a sectional part of a convex cylinder of a very short focus on the outer surface of the stem of the instrument. By such means the index is magnified at any point of the scale to such an extent as to be readily observed. When reading the temperature it is only necessary to hold the tube horizontally, when, with a slight rotation between the fingers, the proper position of the highest magnifying power of the index will be produced. Each thermometer is provided with a gradually tapering constriction near the bulb. Any mercury passing the constriction remains above and answers as an index. Even if all the mercury is shaken into the bulb, a new index will form any time as soon as there is a rise of the mercury above the constriction.

A CLINICAL SURFACE THERMOMETER.

A clinical surface thermometer, by the same makers, is quite an efficient instrument. It is constructed of a flattened spiral-shaped bulb, from which centre the stem and scale rise at right angles. The bulb is surrounded by a rubber cylinder closely fitting to the stem and open on the bottom, thus confining the heat radiating from those parts of the skin that are to be examined for temperature. We would suggest that the index be magnified in this, as in the plain thermometer.

Obituary.

WILLIAM MAXWELL WOOD,

LATE SURGEON-GENERAL U. S. NAVY.

Surgeon-General William Maxwell Wood died March 1, 1880, at his residence, Owing's Mills, Baltimore County, Md., in the seventy-second year of his age. He was born in Baltimore, and was appointed an assistant surgeon in the Navy on May 16, 1829. Some of his most valuable service was rendered when attached to the Pacific Squadron, 1844-6. Commodore Sloat wrote to him: "I am most happy to acknowledge the very important services you rendered the government and the squadron in the Pacific under my command at the breaking out of the Mexican war. The information you furnished me at Mazatlan from Gaudalaxara, at the risk of your life, was the only reliable information I received of that event, and which induced me to proceed immediately to California, and upon my own responsibility to take charge of that country. I have always considered the performance of your journey through Mexico at that time as an extraordinary feat, requiring great presence of mind and address. How you escaped from the heart of an enemy's country, and such a people, has always been a wonder to me, and has been so characterized on all occasions." The Chairman of the Naval Committee of the Senate commented on his services in very flattering terms. Later, Surgeon Wood took part in the Chinese war. During the rebellion he was Fleet Surgeon of the North Atlantic Blockading Squadron. In 1868 he was appointed President of the Examining Board, was Chief of the Bureau of Medicine and Surgery in 1870, and was retired in 1871. His wife survives him, and he leaves a family of sons and daughters. One of his sons is in the army, and another in the navy.

Medical Items and News.

Contagious Diseases — Weekly Statement. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 28, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Feb. 21, 1880...	0	14	35	1	183	38	0	0
Feb. 28, 1880...	0	7	49	4	176	44	0	0

St. Michael's Hospital, Newark, N. J.—The staff of this hospital has been reconstructed, and is as follows: Drs. W. O'Gorman (Medical Director), J. A. Nichols, A. N. Dougherty, Wm. Pierson, Jr., F. Wilmarth, Leslie Ward, Van Wagenen, and J. C. Young. Dr. Dougherty was elected President of the Board, and Dr. Young, Secretary. Drs. Callan and Delaney, of New York, take temporary charge of the eye clinic.

New York College of Dentistry.—The fourteenth annual commencement of the New York College of Dentistry was held at Chickering Hall, Tuesday evening, February 24, 1880. The valedictory was delivered by Edwin W. Knickerbocker, and the address to the graduates by Rev. John P. Newman, D.D.

Favorable Report on the Lunacy Commission Bill.—The House Committee, to whom was referred the bill for the creation of a lunacy commission, have reported it back favorably.

Rush College, Chicago.—The annual commencement of Rush Medical College took place February 24th. One hundred and forty-four graduates received the degree of doctor of medicine. One of these was an honorary degree. Prof. H. M. Lyman delivered the address. In the evening the Alumni Association of the college had its annual reunion and banquet at the Grand Pacific Hotel. The Alumni, faculty, and other guests who sat down to the dinner, numbered 307. Among the speeches was one by Governor Cullom, in which he took occasion to express, in a most positive manner, his support of the Board of Health in its work of ridding the State of quacks.

Medical Inspection of Public Schools. — The French Minister of Public Instruction has addressed a circular letter to the prefects of all the departments, urging them to organize, in their respective districts, corps of medical inspectors of the public schools. The duties of the inspectors will be to visit

these heads at certain intervals, to see that the bubble tubes are kept in a salubrious condition and that the rules of hygiene are strictly fulfilled; to watch over the health of the pupils, and give good advice to the teachers and heads of families, and, when possible, to furnish information for the use and guidance of the government. In some of the large cities, notably Paris, such corps of sanitary inspectors are already in existence, and the results of their labors are said to be very valuable. The latter concludes with the usual compliment to the medical profession for the well-known readiness of its members to devote themselves to the service of the public. It is evidently the opinion of the minister that a sufficient number of capable medical men can be readily found in each department who will be willing to act gratuitously as inspectors, but he suggests that, when necessary, a small salary may be voted by the communes interested.—*Gazette des Hôpitaux.*

Tetanus and the Calabar Bean.—Dr. G. G. Davis, of Frewsburg, N. Y., writes: I take this opportunity to record a case of traumatic tetanus, from a slight wound in the ball of the great toe. The wound was poulticed thoroughly; large doses of bromide of potash, chloral hydrate, and a fluid preparation of calabar bean and whiskey, were the remedies. It was observed that the action of the bean was evanescent. It was given in doses large enough to produce great prostration, then whiskey was exhibited to keep up the heart's action; also, during the profound action of the bean, forty grains of chloral were administered without obvious effect, which antagonism, I see, has been noticed by Ringer. These means served to render the case chronic, and bromide of potash, morphine, and chalybeate tonics, produced a perfect, though very tedious convalescence.

Treatment of Transverse Fracture of the Patella with the Wire Suture.—Dr. J. E. Van der Meulin, of the University of Utrecht, reports to the *Lancet* the first case of transverse fracture of the patella ever treated with the wire suture. It was one that came under his care, July, 1878. The patient was a woman aged forty-four, with a complete transverse fracture. A blood-coagulum could be felt between the parts. A longitudinal incision was made under Lister, the coagulum removed, the parts washed with carbolized water, and the fragments brought firmly together by a single platinum wire suture, which did not pass through the bone to the posterior surface. The fibrous tissue in front of the patella was united by by catgut sutures. The result was perfect. Four months later the patient came back, and instead of depression in the place of fracture, a slight ridge of callus could be felt. Dr. Van der Meulin says that by the eighth day inflammatory adhesions are formed, which shut off the cavity of the joint from the posterior surface of the patella.

Dr. Henry Le Baron Hartt, son of Dr. Henry A. Hartt, died Feb. 18th, at his home, No. 225 East Thirty-first street, at the age of thirty-eight. His disease was malignant diphtheria, from which he was sick for ten days. He was graduated from the College of Physicians and Surgeons, and was a member of the New York County Medical Society and of the New York Academy of Medicine.

Death of Dr. Robert White.—Assistant Surgeon Robert White, of the United States Marine Hospital Service, died Feb. 19th, of consumption, at his station on Bedloe's Island, aged thirty-two. He was of Scotch descent, and took his degree in medicine from Harvard University. After graduating he entered into the practice of medicine in Boston, but afterward went abroad and studied under Professors Simpson and Lister. He was attached to the Royal Maternity Hospital, Edinburgh, as its chief resident medical officer. Upon his return to America he entered the United States Marine Hospital Service, in which he continued on active duty up to a short period before his death. While in this service he wrote a number of valuable articles upon medical subjects. Among them were: "Personal Observations of Lister's Antiseptic Treatment;" "Pleuropneumonia;" "The Nature of Contagion," which was a paper read before the American Public Health Association. Dr White's abilities and his microscopical and pathological knowledge were early recognized by his superior officers, and he was detailed by the late Surgeon-General Woodworth to investigate the yellow fever epidemic of 1878. Regardless of all personal considerations, he went south, into the heart of the epidemic, in accordance with his instructions. He was afterward detailed by the department to accompany the revenue cutter Rush on her late trip to Alaska. The results of this voyage were a valuable scientific report of the country and a large and valuable contribution to the Smithsonian Institution.

Bellevue Hospital.—The examination of candidates for the position of Junior Assistant on the House Staff of Bellevue Hospital will take place at the Hospital on Thursday, March 18, 1880, at 7 P.M. Candidates must present their applications, indorsed by two members of the Medical Board, to the Chairman, Dr. Loomis, on or before the 15th of March.

Provident Dispensaries.—"Pharmacopœia" writes us that some time ago Drs. Stuyvesant Morris, J. C. Peters, R. J. O'Sullivan, and Willard Parker, with the Rev. Drs. H. C. Potter and Hall, took a great deal of trouble in the consideration of provident dispensaries. Some good effect was made upon the hospitals and dispensaries, but not as much as was desired. He believes that provident dispensaries, if established under the auspices of a medical society and put in good hands, would be very useful. They would head off advertising quacks, stop prescribing by druggists, aid many poor people, and they might be made good training-schools for young physicians, who cannot get hospital or dispensary appointments. So thinks "Pharmacopœia."

Bequests to Hospitals.—By the will of the late Mrs. Emma Strecker, daughter of James Benkard, of this city, bequests were left to the following hospitals: $10,000 to the German Hospital and St. Luke's Hospital. About $250,000 is then equally divided among sixteen charitable institutions, among which are: Charity Hospital on Blackwell's Island, the German West Side Dispensary, the House of Rest for Consumptives, and the Woman's Hospital of the State of New York, on 49th street. The will is being contested.

Failure of the Anti-vivisection Bill.—The committee to whom was referred the bill for the prevention of vivisection have reported it back adversely.

Chicago Drainage.—The city of Chicago is in a quandary as to the disposal of its sewage. It now enters the river and is carried thence to the lake. The current of the river used to be so slow that the river water became stagnant and offensive. Pumping works were therefore erected, and 17,000 gallons of water per minute poured into the river. This has hastened the current and purified the water some-

what. But the force of the current now carries organic matter out to that part of the lake from which the city gets its water-supply, so that the latter is thought to be now somewhat polluted. Meetings are being held to see what is the best plan to pursue in the matter.

Bellevue Hospital Commencement.—The nineteenth annual commencement of the Bellevue Hospital Medical College was held Feb. 25th, in the Academy of Music, before a large audience. A large number of eminent medical men, including all the college faculty, occupied the stage. An orchestra, under Dr. Damrosch, furnished the music. The exercises took place in the afternoon, beginning at 3 P. M. Professor Isaac E. Taylor conferred the degrees upon 142 graduates. Applause and bouquets were liberally bestowed. The address was delivered by Chauncey M. Depew. He said that, in his opinion, New York was destined to become not only the first city and financial centre, but the first medical university town in the world. If Hippocrates and Galen were to arise from their tombs to-day, said he, they could not pass an examination at the Bellevue College, so great has been the advance of modern medical science. Mr. Depew's closing advice to the graduates was, "Stick and dig."

The andante from Beethoven's fifth symphony followed, after which the valedictory, by William C. Stone, of Massachusetts, closed the exercises of 1880.

Toleration of Morphine.—Dr. F. Powers, of Westport, Connecticut, writes that a woman about sixty years old entered a drug-store in the town a short time ago and called for forty-five grains of morphine. The druggist weighed it out. She then called for a glass of water, put the drug in it, and swallowed the whole. The anxiety of the druggist was somewhat relieved by her saying that she had taken morphine for forty years, and that forty-five grains was now her regular dose.

The British Naval Medical Service wants more surgeons. Men do not apply, however, owing to the poor advantages, small pay, and slow advance which are offered. The service needs to be reorganized and placed on a higher basis, as has been done with that of the army.

Transfer of the Library of the Medico-Legal Society to the New York Academy of Medicine.—The committee appointed to examine into the advisability of a transfer of the library reported favorably at the January meeting of the society. Action was postponed, however, for a month. The library is the largest but two, of its kind, in this country.

Obscure Development of Abscess of Brain.—Dr. A. Steinach, of this city, writes: "In June of last year a case of brain disease came under my care, which I think in different regards very interesting, and well worthy to be reported. A boy of nine years commenced to vomit after breakfast, and soon after strabismus of the left eye appeared. These symptoms led me to suspect an affection of the brain, and I inquired if the boy had fallen on the head, or received a blow. The mother told me that during last winter, in January or February, her son had been skating on the sidewalk, and had fallen and struck his head on the ice; cold water had been applied, after which the headache disappeared. There had been no bleeding by the nose nor ears. As the remedies against the vomiting had not much effect, the mother went with the patient into the country during the hot season. There the vomiting was less frequent, as the patient lived principally on milk and eggs. After his return to the city the vomiting became again more frequent, and the symptoms of double vision manifested itself; although, by the course of the disease, I was convinced that the boy suffered from a lesion in the nerve-centres of vision. I advised the parents to obtain the opinion of Prof. W. A. Hammond. After careful examination, with the aid of the thermometer and ophthalmoscope, he pronounced the case one of commencing meningitis, due probably to the fall of the patient. The proposed remedies were again applied, but to no effect; the symptoms became more and more aggravated, until, in the middle of November, the boy was seized with eclamptic convulsions. These were arrested by a hypodermic injection of morphine into the arm. Up to this time the patient suffered no diminution of sensibility or mobility in any limb, and there was no difficulty in speech. It was accordingly to be presumed that neither the great hemispheres nor the medulla oblongata were implicated in the morbid abscess. Soon, however, the aspect changed. The iris dilated, sensibility became weaker, and, after lingering in a half comatose state for a few days, the patient died on the 26th of December. An autopsy was permitted and made twenty-six hours after death. The scalp was removed and an examination of the skull made, but no traces of an inflammation from any bruise were detected. The cortical substance of the hemispheres was in a moderate state of venous congestion. At the base of the brain, between the dura mater and arachnoidea, was a moderate quantity of serum; such liquid was also found in the ventricles after incision of the corpus callosum. The surface of the thalamus opticus of the right side showed, in comparison with that of the left side, a grayish, injected color. It was softer and uneven. An incision into that substance opened an abscess of considerable size, comprising more than half the body of the thalamus. Two tablespoonfuls of pus-matter mixed with softened brain-substance could be removed; parts of the right hemispheres, especially in the neighborhood of the thalamus, were also inflamed and softened. The organs of the left brain were in healthy condition. We may now ask, Was the development of this abscess really the consequence of the fall of the boy during last winter, or must another yet unknown cause of it be sought for? An effusion and deposition of lymph may take place in consequence of a fall, and lay imbedded under the arachnoid, if the quantity is very small, without producing serious symptoms for a long time. 'Effusion and deposition of lymph,' says Dr. Jonathan Hutchinson, of London, in a lecture on inflammation at the base of the brain, 'is always found in the greatest quantity where the arachnoid bridges over the largest spaces, as, for instance, at the base of the brain.' Large spaces are bridged over, particularly between the nerve-centres of the middle brain, and from the hemispheres to the former. It may then require a long time until from the spot of the lymph-deposit an abscess is formed, which, by growing larger and larger, produces also more serious symptoms, and determines more clearly the individual diseased organ."

Congenital Diaphragmatic Hernia.—At the annual meeting of the Hamilton Medical and Surgical Society, January 6th, Dr. Mills presented a full-time fœtus, which, at birth, made an effort to breathe, but

"perished in the attempt." On examination, there was found a hernia of the diaphragm permitting the great bulk of the intestines to gravitate into the right chest-cavity. A part of the liver was found, almost separated by the constricting diaphragmatic band, lying in the chest-cavity. The other appearances were comparatively normal.—*Canada Lancet.*

Dr. William Erb, hitherto Extraordinary Professor of Neuropathology in the University of Heidelberg, has been appointed an Ordinary Professor and Director of the Polychnic in the University of Leipsic.

A Medical University in London.—Owing in part to dissatisfaction at the management of the London University, it is said that efforts are being made to establish a university in London which shall take in all the medical schools under its general jurisdiction.

A Quarantine Convention at Washington.—A convention of United States quarantine officials has been called to meet in Washington early in May, for the purpose of revising the quarantine rules and regulations.

International Sanitary Conference.—The Select Committee of the U. S. Senate on Epidemic Disease reported favorably, February 17th, the joint resolution authorizing the President to call an international sanitary conference.

Properties of the Sulpho-Carbolates.—From his studies of these agents, Dr. David Cerna concludes that the sulpho-carbolates (1) are poisonous to cold-blooded animals; (2) are innocuous to warm-blooded animals; (3) that they are probably not antidotal to phenic poisoning, as it has been supposed they were.

Grateful Patient.—A correspondent in Dakota Territory writes: "Your interesting and o'er-true leader in the number of the Record for Jan. 3, 1880, on 'The Doctor's Bills,' recalls to my memory a rather amusing experience I had during the earlier years of my practice. I was called at midnight to visit a gentleman who had just returned from a late dinner, where he had succeeded, by hasty eating, in lodging a large fish-bone in his throat. I provided myself with an emetic, a pair of œsophagus forceps, and other paraphernalia designed to give him relief, and hurriedly repaired to his room. I found him pacing up and down the floor with a look of intense distress and anxiety, occasionally running his fingers down his throat and gagging. He told me, in tones of despair, that he thought it was all up with him, but begged me, if the least glimmer of hope remained, to proceed at once in my efforts to relieve him. He extravagantly declared, in the generosity of spirit begot by the vividness of his fears, that he would give a million dollars to have that fish-bone removed. I assured him that such cases were frequent and ordinarily not attended with much danger, before proceeding to carry out measures for relief. His fears underwent some diminution on the strength of this, and he then declared that fifty thousand dollars would no more than repay the skill and art required to extricate the unwelcome intruder. I smiled and proceeded to introduce the forceps, but after several attempts failed to grasp the bone. His fears again induced him to mention a fabulous sum as the meed of the service that would expel the object of his terrors. I then gave him the emetic, its depressing effect causing his generosity to rise again, barometric-like, to a very high pressure. In a little while the emetic disburdened him of the greater part of his dinner, and with it up came the fish-bone. He gave a sigh and a look of relief, and solemnly looking toward me, said, 'Doctor I wouldn't have that thing in my throat again for five dollars!'

"My fee eventually resolved itself into the 'valuable experience' that the occasion afforded me."

Dr. Heinrich Zorn, of St. Petersburg, Russia, a widely known authority on epidemiological subjects, died recently in that city, of relapsing fever, in the forty-third year of his age. He was one of the first to discover relapsing fever in St. Petersburg in 1864, and published an account of the epidemic in the following year.

Books Received.

The Spectroscope in Medicine. By Charles A. McMunn, B.A., M.D., University Dublin. Philadelphia: Lindsay & Blakiston. 1880.

Handbook of Hygiene and Sanitary Science. By George Wilson, M.A., M.D., etc. Fourth edition. Philadelphia: Lindsay & Blakiston.

Transactions of Vermont Medical Society. 1879.

Transactions of Louisiana State Medical Association. 1879.

Answer to Correspondents.

Viscum Album as an Oxytocic.—Dr. G. L. M., Line Creek, South Carolina, writes: Within the past two weeks I have had three cases of abortion among negroes, in which Viscum Album or mistletoe had been used for the purpose. I am informed it never fails, when given in a strong decoction to produce the desired effect, viz., abortion. I desire to know if it has been described as a substance that will produce abortion.

[We believe it not uncommon for negroes to use Viscum Album for purposes of abortion in other Southern States besides South Carolina. Viscum Album has, however, already been described as an oxytocic agent. In the April number of *New Preparations* for 1878 may be found an article upon the subject, by W. H. Long, M.D., Surgeon U. S. Marine Hospital Service, Louisville, Ky., in which he specially asked the attention of the medical profession to its properties. He first began to use it in 1867, and has employed it in hundreds of cases since then, with uniform results.

Dr. Long finds it of great value in post-partum hemorrhage, in other uterine hemorrhages, and in menorrhagia. He declares that it stimulates the uterus to natural contractions, and does not, like ergot, produce continuous or chronic contractions, and that it may be safely given at any stage of labor where uterine contractions are feeble or suspended. So little is yet known of the true medical properties of mistletoe, that all communications respecting it will be welcomed. It may be given in decoction or fld. ext. The dose of the latter is one teaspoonful levery twenty minutes, until the desired effect is produced. In menorrhagia, one teaspoonful every four or six hours is often enough.—Ed.]

Private Courses of Instruction.—Dr. L. C. S., Littleton, Ill. Instruction in special branches can be obtained in classes only. There are a number of the latter in active operation in New York.

Original Lectures.

ACUTE LOBAR PNEUMONIA.

A Clinical Lecture Delivered in Bellevue Hospital,

By AUSTIN FLINT, M.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF MEDICINE AND CLINICAL MEDICINE IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

(Reported for The Medical Record.)

Gentlemen:—The patient before you has double pneumonia; in other words, pneumonic fever, with an invasion of two lobes—one lobe of each lung. It is only in such cases, and not when two lobes of the same lung are affected, that the disease is called *double* pneumonia.

In several points of view, this case is interesting and instructive. I will read the history, and comment upon those points to which I wish to direct special attention. The patient's name is Henry ——, twenty-one years old, a painter by occupation, a native of the United States, and was admitted to the hospital November 11th. There is nothing important pertaining to his family history. He has been a moderate drinker, but he says he was in good health up to November 8th, when he thinks he "caught cold." Almost all persons who have anything the matter with the chest think they have taken cold. What the patient states regarding that is worthy of no attention. The common idea is that the large proportion of chest affections, especially the acute disorders, proceed from "catching cold." The profession has not, as yet, eliminated that traditional influence. This man thinks he caught cold because he was suddenly seized with a chill, which, he states, "lasted three-quarters of an hour." Very likely the duration of the chill was over-estimated, because a period of shivering seems exceedingly protracted to a patient. He also had pain in the left side near the nipple, but he is not able to recollect how long after the chill the pain was first felt.

The length of time varies, and sometimes from four to six hours elapse, after a pronounced chill, before the pain occurs which belongs to pneumonia. He had pain in the left side near the nipple, and at the same time began to cough. At that time he had no expectoration, but marked dyspnœa, that, doubtless, was caused by the pain, which he says was severe. He took to his bed that night, and he thinks he was feverish, because his skin was hot and he was thirsty. On November 9th the cough had increased, and he began to expectorate a frothy mucus. On that day he began to have pain in his right side. In this account there is evidence that the left lung was invaded on the 8th of November, and on the following day the right lung became involved. He did *not* have a *second chill*. That is the rule. A second chill does not occur when a second lobe, either in the same or in the opposite lung, is invaded. Here I may call attention to another point—and that is, that when more than one lung is affected, the local inflammation *does not extend from one to another*, but there is a new invasion, a second manifestation of pneumonia. So, in this case, the existence of pneumonia in the lobe of the right lung was not due to the extension of the inflammation, but there was a new local manifestation of the disease. He lost in weight, felt weak, and was brought to the hospital on the 11th, having had no treatment prior to his admission. On admission he complained of cough, pain in both sides, dyspnœa; but, aside from these symptoms, he felt tolerably well. His face was flushed, and, as you see, there is a circumscribed flush in the cheeks now; his temperature was 102½° F., his pulse was 112, and had good strength. The sputa was *rust-colored*, and in that fact we have a characteristic symptom. At that time the physical signs evidenced solidification of the lower lobe of the left lung, and partial solidification of the lower lobe of the right lung,. There was bronchial respiration, bronchophony, and marked dulness on percussion Over the lower part of the lower lobe of the right lung, perhaps one-third, there was a crepitant râle, together with the bronchial respiration and bronchophony. These signs are present to-day. There is no evidence of extension of the pneumonia from the lobe which was secondarily invaded, and that often is the fact.

We have here an illustration of what I stated, in my didactic lectures upon this affection, namely, that the lobe first invaded, as a rule, becomes completely solidified; but it not infrequently occurs that the second lobe affected becomes partially consolidated, and that the process of solidification then stops. Up to this time there has been no extension of the local affection of the lower lobe of the right lung. What was the treatment adopted? He was put to bed, and given milk for nourishment. Rest and milk—two important elements in the treatment of most diseases.

On the day of admission his urine was high-colored, had a sp. gr. of 1030, but no albumen. The disease had advanced to the second stage, the local effects of the disease had been produced, and we had a right to expect that nothing more would occur with regard to the local inflammation. At that time, then, there was no indication to attempt to render the attack abortive. It was too late for that; and yet there were present no indications for further medicinal treatment than that employed. He was able to take food in proper quantity, felt quite well, had no pain, and certainly it would not have been judicious practice to have resorted to either local or general bloodletting, purging, or the administration of tartar emetic. The *expectant plan* of treatment was pursued, meaning by that, if no indications for the use of medicines exist no remedies are used, but a willingness to give remedies, no matter how potent, if the indications justified their use.

Nov. 12th.—The patient slept well last night, and to-day feels much better than when admitted. This improvement, of course, must be attributed to the natural course of the disease, and not to remedies, for he has had none.

At 8 A.M. his temperature was 100½° F., without the use of any antepyretic measures; his pulse was 100, and his respiration 28. In the evening he had an exacerbation of fever, and the temperature was 103° F., pulse 112, and respiration 31. He continues to take milk, and to-night he takes the first medicine given, which consists of two drachms of the U. S. solution of morphia.

Nov. 13th.—The patient slept fairly well last night, perspired freely, and he is now perspiring (10.15 A.M.). At 8 o'clock this morning his temperature was 100¼° F., respiration 28, and pulse 84.

Now, gentlemen, this patient was taken with pneumonic fever last Saturday, five days ago. Up to this date his case has, apparently, progressed in the most favorable manner, and yet it is a double pneumonia, which we are accustomed to regard as a much graver

condition than when the disease involves only a single lung, or a single lobe of one lung. There is no complication in this man's case, thus far; all the symptoms being in harmony with each other. The only indication which may arise for the use of medicine, looking at the case as it is presented to us now, is, that if he have an exacerbation of fever this evening, a full dose of quinine to-morrow perhaps would diminish the amount of fever. The anodyne, such as was given last night, probably would be proper. The nourishment will be continued. There are no indications for the use of alcoholic stimulants, for he has been only a moderate drinker.

This case is interesting and instructive, because it illustrates the natural history of the disease. No treatment has been employed that has any potency, and, therefore, the disease of its own intrinsic tendency is progressing towards a favorable termination. There is solidification of the lower lobe of the left lung, and partial solidification of the lower lobe of the right lung, but we may confidently predict that the case will pursue a favorable course unless complications arise. What are the complications to which he is now liable? After this lapse of time we hardly expect that another lobe will be invaded. We may feel pretty safe upon that question. There is not much ground, after this lapse of time, to fear the development of pericarditis. The circulation is so good, the action of the heart has so much strength, there is so little embarrassment of respiration, that there is but little ground for supposing that such an accumulation of blood will take place in the right side of the heart, although the pneumonia is double, as will produce distention and incur the liability to the formation of heart-thrombus. Unless the circulation should become weaker than it now is—and there is no apparent reason why it should, yet it will be watched, and, if necessary, remedies to maintain the action of the heart will be given—the patient is but little liable to this complication which occurs so often in the unfavorable cases of this disease. So far as we can judge from the present condition of the patient, we have every reason to expect that he will progress favorably through the disease. There is one point to which I wish especially to call your attention. The fever, as is usual in a case of pneumonia, was much more marked at first than it has been since, and yet resolution of the lung has not begun. The local conditions are substantially the same as they were when he was admitted to the hospital, and yet we should not expect to have the same amount of fever because of that, for it is a febrile disease and not a purely local inflammation. The fever is not purely symptomatic of a local affection, but the local affection is the result or manifestation or local effect of the fever.

How do we determine when resolution has commenced? I think it has begun where the local affection first manifested itself—namely, in the lower lobe of the left lung; and why? It was easy to understand that the part of the lobe which was first affected in this case was the *upper* part; and now, when I listen, I find that the respiration in that portion is not purely bronchial. I think I am able to appreciate a slight vesicular quality. The respiration which I now obtain is broncho-vesicular, yet the bronchial character predominates largely. Such a case as this is interesting for study as resolution goes on, especially with reference to broncho-vesicular respiration, assuming that resolution progresses without interruption from this date. To-morrow, where I now hear only indistinct broncho-vesicular respiration, I shall be able to get respiration having a well-marked vesicular quality. As incidental thereto, the pitch is not so high, it has less tubular quality, the expiratory sound is somewhat less prolonged, and so from day to day, for a week or more, we shall be able to recognize the changes in respiration, the inspiration more distinct, the expiration less prolonged, less high, and less tubular, until we find it normal in character.

Now we have broncophony, which will continue for several days perhaps, even when respiration shows considerably more of the vesicular quality in inspiration than at present; but after a time the broncophony will disappear, and there will remain increased vocal fremitus, which will disappear when resolution is complete. Dulness upon percussion will remain for several weeks perhaps, after all the other symptoms have disappeared. The amount of dulness and its duration are proportionate to the quantity of exudation incident to the associated pleurisy. While the exudation into the air-cells is often absorbed very rapidly, the exudation upon the pleural surface is always absorbed slowly, and it will take weeks for it to disappear. So long as this exudation remains, we have dulness upon percussion.

ACUTE LOBAR PNEUMONIA.

Case II.—The history of the second case I bring before you is as follows: P——, æt. 36 years, native of United States, a housekeeper, was admitted to the hospital on the 6th of December, with an unimportant family history. She stated, on admission, that she had always been in fair health up to ten days ago. Prior to her present illness she drank various alcoholic drinks almost constantly for two months. About the first of December she began to feel chilly, had no distinct chill, and the chilly feelings were followed by fever and vomiting. Cough soon followed, and pain in the right side and back, accompanied by scanty expectoration. On admission she complained of feeling very weak, of pain in the right side, of cough, complete loss of appetite, some looseness of the bowels, and had a temperature of 101⅘° F. The urine was acid, sp. gr. 1012, no albumen. On physical examination of the chest, dulness on percussion was found over the upper part of the right lung, increased vocal fremitus, increased vocal resonance, and bronchial respiration.

The *treatment* adopted was rest in bed and the administration of half an ounce of whiskey every two hours, with milk for nourishment. The action of the heart being rather feeble and somewhat irregular, digitalis was administered in doses of ♏ xx. of the tincture t.i.d.

December 7th, morning.—Temperature, 103° F. Evening: Pulse 112, temperature 103⅘ F., and respiration 28. Her general condition remained unchanged. Treatment continued: stimulants, nourishment, and digitalis.

December 8th, morning.—Temperature 103° F., pulse 102, and respiration 36. Evening: Temperature 103° F., pulse 120, and respiration 38.

December 9th, morning.—Temperature 102° F., pulse 100, and respiration 36. Evening: Temperature 102⅘° F., pulse 105, and respiration 28. The patient has had a few loose passages from the bowels, for which ♏ xx. of Squibb's liquor opii compositus was prescribed, and the diarrhœa was controlled.

December 10th, morning.—Temperature 100° F., pulse 90, and respiration 26. Evening: Temperature 101⅗° F., pulse 85, and respiration 25. Bronchial respiration continues, but with it crepitant and

subcrepitant râles. The patient feels much better than yesterday.

There has been no treatment in this case with a view to reduce the temperature, and it is a fair illustration of the natural course of pneumonia. The pulse and temperature have fallen, although the respiration remains increased in frequency. The upper lobe of a lung in this case is affected. As a rule, cases of acute pneumonia in which the upper lobe is the seat of the local disease are more grave than when the local affection is in a lower lobe. That fact has been noted for a long time—that there is more constitutional disturbance, the nervous system suffers more severely, etc., when an upper lobe rather than a lower one is invaded. In that respect, therefore, this case is rather an exception to the rule, because it has not at any time presented alarming or unusually severe features, and resolution is going on favorably.

Original Communications.

ON THE
RELIEF OF THE DEFORMITY OF A BROKEN NOSE BY SOME NEW METHODS.

By ROBERT F. WEIR, M.D.,

SURGEON TO THE ROOSEVELT AND NEW YORK HOSPITALS.

(Read before the New York State Medical Society, at its late meeting, February 3, 1880.)

The treatment of deformities of the nose has, until recently, received but little attention from surgeons since the time of Dieffenbach. A step in advance has, however, been lately made by Mr. William Adams, of the Great Northern Hospital, London, who published in the *British Medical Journal*, October 2, 1875, an account of a new method of relieving the unsightliness and obstruction due to a distorted and depressed fractured nasal bone, as well as to deviations of the cartilaginous septum nasi. Mr. Adams recognized that all cases of broken noses might be classed under two heads: 1st. Those in which the injury is limited to the anterior or cartilaginous portion of the nose, and in which the deformity consists essentially of depression and lateral bending of the cartilaginous septum, with probably a partial displacement of the septum from its bony attachments; and 2d. Those in which the nasal bones are fractured, with more or less depression and lateral displacement, and with a certain amount of crushing and bending of the cartilaginous septum.*

Mr. Adams recommended in his paper on this subject, that the cartilaginous septum, when deflected, should be forcibly straightened with a pair of flat-bladed forceps, introduced with one blade in each nostril, and if there was also present a depressed fracture of the nasal bones, that these bones should be refractured by crowding at the same time the forceps strongly upward; assisting this manœuvre with powerful pressure by the thumb and fingers on the outside. After the deformity had thus been overcome, a pair of steel plates, secured externally by a screw, were worn for a few days, passed up on each side of the replaced septum, and making only light pressure. Subsequently separate ivory plates were introduced by the patient, and worn for a number of hours each day. If the bones had been refractured, they were assisted in their reposition by a nose-truss, so contrived that when fastened by a band to the forehead, pressure was made by screw power on the loosened bones at their greatest convexity.

Mr. Adams presented in his article three cases that had been treated by him. The first was a man whose nose had been deformed by a cricket-ball striking him on its end one month previously. The external deviation was slight, though one nostril was much obstructed by the bent septum. This latter was successfully straightened by the above-described method. The second case was one of fracture of the nasal bones, with depression and coincident bending of the cartilaginous septum, from a fall received six months previously. While the septum was easily straightened, the depression and lateral deviation of the nasal bones were not improved until after two operations had been performed. The case was not, I should judge, a perfect success.

The third case occurred in a young lady, whose nose had been hurt some six years previously by a fall of forty feet down a bank, crushing thereby both nasal bones and flattening them. The cartilaginous septum was also depressed and bent so as to project to a large degree into the right nostril. The forceps readily replaced the septum, and to some extent Mr. Adams succeeded in improving the position of the nasal bones. The final report reads, "One month later I endeavored still further to raise the depressed bones, with marked improvement, and with much of the depression removed."

I have ended the citation of these cases purposely with this quotation, as it shows, in my opinion, the demerit of this operation. For in the several trials which I have made to refracture nasal bones by Mr. Adams's method, failure has been encountered, and a departure, therefore, has been made from his plan of action, which I venture now to bring to your notice. The cause of failure in Mr. Adams's method appeared to be twofold: first, that the forceps was too large at its end to be satisfactorily carried up under the nasal bones; and second, that the fracturing force was not ample enough, notwithstanding a variation in the procedure was made of strongly opening the blades laterally, while they were introduced as high up as possible.

Another variation that I practised, after a fair trial of the above plans in three of my cases, was this: one blade of the forceps was passed inside the nose and the other outside, grasping thus the lower edge of the nasal bone, and sharp but momentary twisting resorted to, with the effect, in two instances, of breaking on one side only—in one case the nasal bone, and in the other the edge of the nasal process of the superior maxilla.

Therefore in two cases, one of which is kindly furnished me by Dr. Little, a radical departure from the refracturing process from within was taken, and the deformity most easily and satisfactorily removed by what is believed to be an original procedure. This was nothing less than to perform an osteoclastic operation, or, in more ordinary words, to make an incision (not directly to the bone, but bevelling, as Packard, of Philadelphia, has suggested, as creating the least cicatrix), not more than an eighth or a quarter of an inch long, over the greatest convexity of the bony deformity and parallel to the free border of the nose, so as to, as near as may be, strike the nasomaxillary junction, and then by the introduction, through this small cut, of a very narrow chisel,

* Watson's Diseases of the Nose, p. 305.

to cut through the bone with a few strokes of a mallet. And if the tilting action of the imbedded chisel proves insufficient to loosen the other side of the nose, it is only necessary to chisel that side also, through the first and only incision to be made. It is remarkable with what ease and rapidity this replacement can be effected, and how readily the retention of the nose in its corrected position is accomplished. In one instance, where a moderate depression existed on one side, the elevation of the refractured bone was brought about by pushing it upward from within the nose by means of a dentist's amalgam-plugger (see Fig. 1, a very excellent in-

FIG. 1.

strument too, by the way, in the treatment of recent fractures). A piece of sticking-plaster, rolled up with the sticky side out, to form a compress, is laid along the nose on its formerly prominent side, and another strip drawn across this and the face holds everything snugly in place.

The nose-truss,* a modification of Adams's, was subsequently applied, and after a few days served to prevent any displacement, though but little pressure was required to be made with it. The cicatrices, as was expected, are insignificant, and not to be seen by ordinary inspection.

CASE I.—*Lateral deviation of nasal bones to the right; failure of Adams's operation; refracture by chiselling; perfect restoration.*—The patient was a man of thirty-five who had sustained a fracture of the nasal bones by a fall down the well-hole of a stairway, in such a manner that his nose struck the baluster. The deformity produced was so great (see Fig. 2) as to carry the distal portion of the nose three-quarters of an inch to the right beyond the median line, with a marked projection on the same side of the nasal bones; no depression, however, existed. The

FIG. 2.—Before operation.

tear-duct on that side was much disturbed, and an annoying epiphora was present. No marked deviation of the cartilaginous septum.

Nov. 29, 1879: The patient was etherized, and with Adams's forceps introduced into the nose an attempt was made to refracture the nasal bones by first pressing with the instrument upward and then to one or the other side; and this not succeeding, the jaws of the forceps were forcibly crowded apart, hoping thus to break asunder the nasal bones. This failing, principally because the end of the forceps could not be carried sufficiently high up, one blade of the forceps was placed outside the nose over the nasal bone of one side, and the other blade of the forceps passed into the nose as far as possible, and by a twisting motion pressure brought to bear on the bone. Nothing was accomplished by two trials save a slight breaking-off of the lower part of the nasal process of the superior maxilla of the left side. A short bevelling incision, scarcely a quarter of an inch long, was then made over the line of nasal-maxillary junction on the right side, and the nasal bone separated in a few moments, by chiselling, from its frontal attachment. Then by tilting the nose with the chisel *in situ*, and by forcible pressure with the thumb from the outside toward the left, the other nasal bone was broken, when the replacement (see Fig 3) of the nose was at once accomplished. The nose

FIG. 3.—The result.

was secured in its new place by two strips of adhesive plaster passing directly across the face. The next day a modification of Adams's nose-truss* was applied to retain the nose in position; very little pressure sufficed to do this.

The result was a complete success. In about fourteen days the nose was sufficiently firm to allow the head-band and apparatus to be dispensed with. With the cure was noticed also a decided amelioration of the flowing of the tears. The cicatrix is now (Jan. 15, 1880) scarcely to be seen.

CASE II.—Was under the charge of my friend, Dr. Little, who was so much satisfied with the result I had obtained, that he resorted to the same operation.

The history of the case, which he has forwarded me, is as follows: The patient, a young man of twenty-nine, was accidentally struck in 1877 by an Indian (or large wooden) club. By this the nasal bones were fractured and strongly carried to the left side. At the time of the operation there was yet a decided scar over the nasal bones from the wound of the integument.

January 8, 1880: The patient was admitted to St. Luke's Hospital, and Dr. Weir's operation was performed after a trial of Adams's forceps with both blades within the nostrils, and also with one blade outside, making in the latter case a twisting motion to break the bones. These attempts failing, a small incision was made over the nasal process of the left superior maxillary bone, and with a small chisel the nasal bone of that side was readily detached, and that of the right side afterward easily broken

* Made for me by P. H. Schmidt, instrument-maker, of this city

* An ingenious spring nose-truss has also been devised by Dr. Toland, of San Francisco.—*Lectures on Surgery*, p. 453.

by the forceps, with one blade outside and the other inside the nostril. The replacement of the nose was then at once accomplished. The patient left the hospital on the 10th, so little irritation being caused by the operation; and for several days he wore Dr. Weir's retentive apparatus. This, with the use of pressure of the fingers towards the right side, sufficed to keep the nose in the normal position until the union became again firm. The photographs, before and after the operation, which accompany this case show that the restitution of the nose was perfect.

Since the failure of the Adams forceps in this case, I have had a pair constructed longer and narrower in the blades, and with more powerful handles (see Fig. 4), but have had, as yet, no opportunity to test their efficacy.

Fig. 4.—Modified Adams's forceps.

Although, in these instances, no deviation of the septum occurred, yet a fair experience in such deformities leads me to the opinion that in many instances the mere reposition by Mr. Adams's forceps and the subsequent use of his retentive nose-pads will probably not be satisfactory. The resiliency of the bent cartilaginous septum is in most cases so great that the suggestion of Goodwillie needs to be put into effect. It is to cut out with Blandin's * punch-forceps (see Fig. 5), a section of the

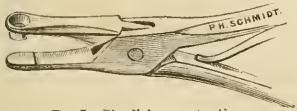


Fig. 5.—Blandin's emporte-pièce.

septum, when its replacement is much more stable, and all tendency to relapse is generally avoided. The hole made may be, if necessary, as large as a five cent-silver piece (half an inch in diameter), and yet no fear need be entertained of causing any dropping in of the nose, or impairment of its external contour. The opening in the septum, moreover, when made, becomes considerably smaller on cicatrizing, and frequently completely closes, and, if permanent, is in no way a detriment. On the contrary, if, for some unforeseen reason, a failure to relieve the deformity occurs, or only a partial success is met with, then this opening allows a free access of air from the unobstructed to the obstructed nostril.

When the deviation of the septum causes, as is frequently encountered, an almost complete occlusion at or near the external orifice of the nose, the remedy is readily applied. It is to cut off, with a sharp knife or scissors, the projecting portion of the cartilage. This little operation I have found to be facilitated by using a small double-gouge forceps, mounted like a dressing-forceps (see Fig. 6.) If the bending is great, it may be necessary to remove all the cartilage at this point; if this be done carefully, the mucous membrane of the opposite side may be preserved intact; but if a communication be established between the two nostrils above the columna, in most cases it will soon close over and certainly give rise to no trouble.

* Or, "Emporte-pièce," Dict. encyclopéd. des sciences méd. et chirurg., article "Nez."

The same instrument will serve to cut away a turbinated bone, or those not very rare exostoses from the vomer that shut up sometimes the middle

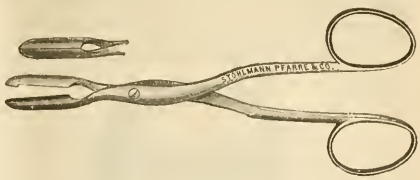


Fig. 6.—Double-gouge forceps for the nose.

and inferior meatuses. Some seven years ago I had occasion first to remove one of these exostoses, to me then previously unknown, and successfully performed it with a small chisel. On a subsequent examination of ten skulls, I found that the malformation existed in three instances. Since then it, and outgrowths like it, have been described, and principally by Prof. Harrison Allen, of Philadelphia.*

But this is a digression from my main point, which was to present not only a novel, but also a very easy method of relieving a very serious and hitherto quite intractable deformity of the human face.

I now venture to beg the Society's further indulgence in occupying their attention with an additional instalment on the subject of an original and possibly novel method of *elongating* a *shortened* nose. I trust this caption is sufficiently taking to secure me a few minutes' patient hearing. The method is at once understood by a reference to these diagrams, casts, and photographs.

The patient, a man of twenty-eight, was kicked by a horse when he was nine years of age. The nasal bones were fractured and depressed, the nose driven up and shortened, and its tip badly cut, so that the end of the columna was buried below the surface of the adjacent skin. The nares looked directly forward, and the nose was decidedly "tiptilted like a petal," as Tennyson says.

To relieve this condition, shown in Figs. 7 and 8

Fig. 7.

(from photographs), four operations in all have been performed, with a most satisfactory result. The first one, August 15, 1878, consisted in Adams's operation to straighten the wrinkled septum, and to refracture

* Am. Jour. Med. Sciences, Jan., 1880.

and raise the depressed nasal bones. Only the nasal bone on the left side could be refractured and partially replaced. The septum was not improved. At this operation the depressed end of the columna was loosened and secured on a level with the surrounding skin.

The second, and the important operation (see Fig. 8), was done on the 30th of September, 1878, in this

FIG. 8.—Showing the line of incisions in the second operation.

way: the nose was cut transversely across about three-quarters of an inch from its tip, through skin, cartilages, septum and all, to a level with the face, until it was sufficiently free to be easily depressed to a proper level. When this was done a triangular gap existed between the two edges of the cut, above and below, of nearly an inch in width. Parallelogrammatic flaps, involving the *whole* thickness of the cheek, were then cut wider than the gap to be closed in the nose (in order to allow for subsequent shrinking), with their attached bases close to the nose. These flaps, after being dissected up, were turned on themselves, so that their distal or external ends met in the median line, and were there secured, as well as elsewhere, by care-

FIG. 9.—The result of operations for elongating the nose (from a photograph).

fully adjusted black-silk sutures. The spaces whence they were taken in the cheek were in turn closed by bringing together their opposite sides. This was done easily, as the tissues adjacent were ample, creating only a linear cicatrix and after a month's delay (October 26th) the appearances presented as the results of this operation were again modified by taking out the redundant portions of skin made by the twisting of the flaps at their bases, which trimming process was again resorted to in June of 1879. Now the case is complete, and is shown in Fig. 9. The new portion of the nose, owing to the thickness of the cheek-flaps, is quite firm, and no obstruction of the nostrils exists.

SOME NEW FEATURES IN THE ANATOMY OF THE CORPORA QUADRIGEMINA.

By EDWARD C. SPITZKA, M.D.,

NEW YORK.

THE older anatomists, observing the similarity in external appearance between the anterior and posterior pairs of the corpora quadrigemina, naturally considered all the four tubercles to be analogous in their structure and relations, and therefore also in their physiology. This view they considered to be materially strengthened by the fact that in reptiles the place of the double pair possessed by the mammalia was occupied by a single pair. According to the older view, the only difference between the optic lobes of reptiles and the corpora quadrigemina of man and his allies, was that in the latter, in addition to the longitudinal furrows separating the embryonically *single* mid-brain into two lateral halves, there was formed a transverse furrow which resubdivided these, so that four tubercles resulted.

This view is erroneous, and such physiological inferences as have been based on it fall to the ground. Meynert and Huguenin, for example, attribute to both the anterior and posterior pairs the same relations to the optic tracts. Adamuk attributed to both an influence on the co-ordination of the ocular muscles, basing his opinion on the results of local irritation of these bodies, forgetful of the fact that irritation cannot be limited in the depth to which it may extend, when experiments are carried on in so narrow an area.

On discovering faintly marked, but unquestionable corpora *quadrigemina* in an anaconda snake,* I was led to make a comparative and embryological study of these bodies in different animals (including man) with the following result:

The middle cerebral vesicle of man divides into two lateral halves at a very early period. As soon as the division becomes well marked, an elevation is noticed between the subdivided mid-brain and the cerebellum, which, at first very insignificant, grows rapidly and becomes joined to the two halves of the mid-brain. It is *at all times* demarcated from the latter by a shallow sulcus running transversely. Subsequently the posterior body undergoes a division by a longitudinal furrow which appears like a continuation of the furrow separating the pair of ganglia in front of it.

All this can be traced without difficulty, in embryos between the second and fourth months,† and, confirmed by observations on the embryos of the dog, proves conclusively: 1st, that only the anterior tubercles are derived from the mesencephalon; 2d, that the posterior pair is a secondary and foreign addition, derived from the hind-brain; 3d, that the cur-

* Contributions to Encephalic Anatomy. Part VII. Journal of Mental and Nervous Diseases. 1879.

† I am indebted to Drs. Harwood, Roth, Keune, and McGuire for a very complete series of embryos of these ages.

rent description of the segmentation of the corpora quadrigemina is incorrect, inasmuch as there are not first one, then two, and finally four bodies, but first one—two—three—and then four. There is a stage when, the anterior pair being represented by two tubercles, the posterior pair is represented by a single undivided body.

These facts alone should render it desirable to subject the function of the posterior pair to a more careful scrutiny than it has hitherto received.

On examining carefully a series of microscopic sections from reptilian brains, I found that the ganglion of the posterior pair was *present* in the region of the valve of Vieussens, and had the same shape as in mammals, as well as an analogous histological structure. It could be easily shown that this ganglion (which is double) had no relations of any kind either to the optic or the oculo-motor nerves. This fact is also damaging to the older view.

Several years ago Gudden,* after extirpating the eyes of young animals, was struck by finding that the secondary atrophy induced was limited to the anterior pair. This also rendered it highly probable that the anterior pair *alone* was related to vision and the movements of the eyeball. The same observer discovered another highly valuable fact, tending in the same direction, namely, that in the practically blind mole, the anterior pair was naturally atrophic, the posterior hypertrophic. I have been able to confirm this observation and to extend it; in the case of some crepuscular bats a similar though less pronounced difference is found. A very instructive fact is remarked on comparing the corpora quadrigemina of the large-eyed pteropus (so-called fruit-bat, flying fox) with the atrophic-eyed small bats of this climate. In the former the anterior pair is very large, and (the sole instance in the animal kingdom) each anterior tubercle shows a transverse sulcus, while the posterior pair is exceedingly small. In the latter species this relation is reversed.

Forel† calls attention to the grave error into which Meynert, Huguenin, and their followers have fallen in regarding the ganglia of the anterior and posterior pairs as similarly shaped lentiform bodies. It is difficult to understand how such a conclusion could have been arrived at. There can be no greater difference than that found between the anterior and posterior pairs in this respect. The anterior pair has a true cortical structure, particularly finely marked in reptiles (iguana, tortoise), and well illustrated in a fine artotype of a specimen from the frog, taken from one of Dr. J. J. Mason's photographs. The posterior pair contains a lentiform ganglion, of a gelatinous basis structure, and more or less rotund cells with fine processes, such as are found in sensory ganglia.

Forel has also shown that the tracing of a part of the optic tract into the posterior pair, by Meynert, was based on his confusion of this with other fasciculi.

Pathological experience has shown that lesions of the posterior pair (exclusively) affect neither vision nor the ocular movements.‡ Finally, in experimenting on opossums, animals admirably suited for the purpose, as their corpora quadrigemina are not covered by the cerebral hemispheres, I have found that superficial irritation of the posterior pair, as well as destruction of the ganglia of this pair with chromic acid, did not modify the ocular movements, while irritation of the anterior pair caused the most violent nystagmus, which differed in its direction with the locality irritated.

From all these facts, conjoined with the total absence of any visible connection between the optic and oculo-motor nerves on the one hand and the posterior pair on the other, it follows:

1st. That the anterior and posterior pair are not analogous ganglia.

2d. That each pair has a different embryonic origin.

3d. That the posterior pair is different in structure and relations from the anterior.

4th. That only the anterior pair is related to the retinal and oculo-motor innervations.

5th. That the optic lobes of reptiles are homologous with the anterior pair of man alone. The posterior pair of man is represented in most reptiles by a concealed lentiform ganglion, and in some pythons by a distinct posterior pair of tubercles.

The relation of the posterior pair to the retina and ocular muscles being excluded, the question arises, What functional importance does it or may it have? It is highly probable that these ganglia have some important relation to tactile sensation, for the following reasons:

1st. Their structure is that of sensory ganglia. 2d. Their embryonic origin is from the same mass which, lower down, becomes developed into the gelatinous sensory nuclei of the trigeminus. 3d. The fasciculus connected with these ganglia (inferior lemniscus) can be clearly traced to the posterior columns of the cord through a beautiful decussation which lies in front of the pyramidal crossing. 4th. The posterior pair is hypertrophic in animals with defective vision, and in such animals it is known that the sense of touch vicariates for that of sight. The performances of the bats whom Spallanzani blinded are suggestive in this connection, when we bear in mind that their posterior pairs are very large. In the mole, with a considerable development of the sensory apparatus at the end of the snout, the same feature is found.

To return to the anterior pair, it seems to the writer that few ganglia present such excellent opportunities to the investigator who seeks to establish the principles of co-ordination on an anatomical basis.

In reptiles it is found that the ganglionic substance of the optic lobes (anterior pair in man) is covered on the outside by an expansion of the optic nerves. Then follows a series of beautiful elongated cells, arranged in a radiatory manner, with processes running towards the axis of the aqueduct. A layer of fusiform cells next follows, which is intercalated between a system of concentric fibres. Then comes the deep white matter of the optic lobes, which separates the cortical gray from the central tubular gray, the latter surrounding the aqueduct on all sides, and containing in its inferior part the nucleus of origin of the oculo-motor nerve.

The fibres of the deep white matter, which evidently originate in the cortex of the optic lobes, partly enter the oculo-motor nucleus of the same side, partly through a beautiful decussation, that of the other. A considerable proportion of the fibres does not enter either nucleus, but, changing direction, becomes longitudinal, and constitutes a fasciculus,* which, entering into relation with the trochlearis and abducens nuclei, extends uninterruptedly into the spinal cord, there to constitute the

* Archiv fuer Psychiatrie, vol. ii.
† Ibid., vol. vii.
‡ Nothnagel: Topische Diagnostik.

* Posterior longitudinal fasciculus of the tegmentum.

deepest part of the cells and of Turck, and to terminate directly and by the anterior commissure in the nuclei of origin of the cervical nerves.

It would thus constitute a bond of union between the visual impressions and the movements of the muscles controlling the eyeball, and the rotation of the head and neck. It is the path by virtue of whose existence the pigeon, deprived of its cerebrum, follows a candle-light with its eyes and head.

It is somewhat puzzling that, in animals in whom the movements of the eyeball are *associated*, as in man, the monkey and cat, the relations of this fasciculus should be essentially similar to those of reptiles, where one eye may be withdrawn by the *musculus choanoides*, and entirely motionless, while the other is protruded and moving in all directions (frog, loss so tortoise and alligator; a remarkable instance is that of the chameleon, which is able to protrude both eyes on erectile stalks, and move these in opposite directions, and in the most curious disharmony).

But anatomy must content itself with being able to point to the apparatus through which the co-ordination takes place; the *how* is a question for the physiologist. It is no more remarkable that the posterior longitudinal fasciculus should show so little variation in animals whose oculo-motor co-ordinations differ, than it is that in both reptiles and mammals the trochlearis nerve decussates in the valvula Vieussenii, although the great teacher Brucke* taught that *a priori* it should not decussate.

There could be no stronger proof for the assertion that the fasciculus in question has a close relation to the oculo-motor nuclei, and those innervations which may be interpreted as co-ordinated retinal reflexes, than that in the mole (Forel) and bat (own observation) it is defective just as the oculo-motor nuclei are absent or rudimentary.

The deep white matter of the anterior pair bears the same relation to the cortical gray of this region that the white matter of the hemispheres bears to the hemispheric cortex. And the continuation of the deep white matter of the anterior pair, as a longitudinal fasciculus, plays an analogous rôle to the internal capsule and pyramidal tract, placing lower centres under the control of higher ganglia.

We find in the cortex of the anterior pair of man and the mammalia large multipolar cells, somewhat resembling the larger pyramids of the cerebral cortex, and which tradition assigns a motor function to.† This fact supports the view that in the anterior pair we have to seek for certain motor innervations and co-ordinations.

As to the relations of the anterior pair to the appreciation of visual impressions, while it is quite evident that in lower animals they or their homologues constitute the sole visual centres, and that all visual impressions must travel through them before being projected in higher ganglia, they have lost this exclusive position in man and his allies. It would lead me too far to discuss this question at length, and I therefore content myself with referring to the fact that the gradual elaboration of a direct optic path to the thalamus, and finally to the occipital lobe through the external geniculate ganglion (against Forel), is only in accord with the general law of the development of the nervous tracts, that fasciculi running uninterruptedly to high ganglia are preceded by interrupted tracts in their formation.*

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After the above article had been written, I was able, through a piece of good fortune, to confirm one of its propositions by a very striking observation. In seeking to establish as complete a chain of evidence for my statement that the posterior pair of the corpora quadrigemina was represented in the reptilian brain a statement supported by the discovery cited, I felt that the brains of one group of reptiles, which, in my opinion, stands far nearer the mammalia than any other, needed a thorough examination. On the 18th of February I received a perfectly fresh *iguana*, and was able to supply the missing link. It seems that in the previous studies of the most allied Lacertian brains, the observers have examined and delineated the brain as a whole, without separating and exposing the different segments; how otherwise the beautifully patent relation which I am about to describe escaped their notice I am at a loss to account for.

In this as in some other Lacertians, the cerebellum, unlike that of the alligator and tortoise, is turned upwards and forwards, its arachnoid fusing with that of the optic lobes, against whose postero-inferior contour the cerebellum is applied. On separating the cerebellum from the optic lobes, which, if done carefully, can be perfectly well accomplished, two finely-marked tubercles, small but of as plastic a contour as those of man or the horse, were revealed. The disproportion between the optic lobes and these posterior tubercles is very great, but there can be no doubt that the *iguana* has not only an anterior and posterior pair represented (as I have established for turtles, etc.), but has these bodies also *in the same relative position* as man.

That allied Lacertians possess the same character I do not doubt, for in a sagittal section of the brain of *Psammosaurus Bengalensis*, figured in Huxley's Comparative Anatomy, I find what appears to be the section of this body. That author, however, has overlooked it, for he adheres to the criterion between the mammalian and sauropsidan brain, that the former has always four tubercles, and the latter always two, which is herewith shown to be imperfect.

Other remarkable and noteworthy features were observed in the same brain, approximating it to the mammalia. These, however, will not merit an extended description until the complementary microscopical description can be furnished.

E. C. S.

The Meeting of the White Mountain Medical Society, on Jan. 28th, at Wells' River, was quite a successful one. Papers upon "Diphtheria," by Dr. Moody, on "Abscess of the Spleen," by Dr. Brown, of Well's River, and on "A Case of Fracture, with Dislocation of the Neck of the Femur," by Dr. Mitchell, occupied the most of the first day. The election of officers resulted in the choice of Dr. C. G. Adams, of Island Pond, President; Dr. C. P. Frost, of Hanover, Vice-President, and Dr. C. R. Gibson, of Woodville, N. H., Secretary. The Society adjourned to meet at Littleton, N. H., in July, 1880.

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* Bruecke: Vorlesungen über Physiologie.

† I cannot let this opportunity pass without protesting against the assumption of Charcot and his followers that large multipolar cells *must be motor*. Its fallacy is easily proven.

* The Architecture and Mechanism of the Brain. Preliminary observations. Journal of Mental and Nervous Diseases. 1879.

DEFIBRINATED BLOOD AS A SUBSTITUTE FOR EXTRACT OF BEEF.

By F. E. STEWART, Ph.G., M.D.,

NEW YORK.

"It is the result of centuries of observation and study," says Dr. A. H. Smith, in his article on rectal alimentation, "that disease is a burden imposed upon the economy, which can be sustained and ultimately thrown off only by an expenditure of vital energy, and that in increasing, and not in diminishing, vital force, are we furthering the reparative processes of nature." Great prominence is therefore given to supporting, instead of the former reducing, method of treating disease. Rapid tissue-waste demands corresponding supply. It is for this reason that restorative and building-up remedies are now so much in vogue. Cod-liver oil, because well fitted for furnishing carbon, is employed to reconstruct tissues of which carbon enters largely as a constituent, as well as for its tonic properties. But the most exhausting waste in acute cases is of the nitrates, and there is no corresponding article to cod-liver oil for the repair of nitrogenous waste.

Meat as a food, in health, is demanded by the appetite for the supply of waste of nitrates; but in sickness an impaired stomach refuses to digest it. Attempts have therefore been made to present meat by preparation in a form for easy assimilation. Experience, however, proves that these preparations are no substitute for meat, and the numerous extracts and essences of meat flooding the market are but records of many failures.

New Remedies for January, 1880, contains an original communication from Adolph Scheppe, on extract of meat, from which we glean as follows: "*Liebig's Extract*, and the extracts from Montevideo, San Antonio (Texas), Fray Bentos (Uruguay), are made by extraction with cold water, and subsequently heating to the boiling-point; in this way all albumen coagulable by heat, gelatine, and fat, are left behind. They therefore are not nutrients at all, but must be considered as nervous stimulants, like tea, coffee, chocolate, brandy, and similar articles." Then follows an analysis, giving the composition of Liebig's Extract of Beef and a number of other beef preparations extensively advertised. In *Johnson's Fluid Beef* it is found that the want of albumen in the extract is supplied by the addition of powdered meat. There is no advantage, however, in this over beef itself as an article of food, and surely the beef is much cheaper. *Valentine's Meat Juice* "is stated to be made by partly roasting the meat, by which process the albumen coagulates, and obtaining the juice by subjecting to hydraulic pressure. . . . This extract contains no appreciable amount of albumen coagulable by heat; by the process of roasting, a minute quantity is peptonized. Compared with Liebig's Extract it is very expensive, the price being double, and the strength less than two-thirds." *London Essence of Beef* contains more water, and less solid matter, than the meat from which prepared. It therefore cannot claim to be a condensation, and is deficient in many other points. *Mensman's Peptonized Beef* is stated by this authority to contain coagulable albumen and blood. "The presence of coagulable albumen and blood is incompatible with the process of peptonization, since both of those substances are the first to be changed in their nature, by the action of the acid necessary for the successful completion of the process." He also states that tests fail to indicate any appreciable quantity of peptone. The analysis following this statement gives but 5.76 per cent. of solids, altogether, in the preparation, while meat, freed from fat, contains 21.5 per cent. It seems, therefore, that the article is not only misnamed, but is found wanting in other respects.

Beef-tea also has long lost prestige as a dietetic. It has hardly any nutritive value. Albumen is the constituent desired from the beef; it contains the nitrogen. But albumen coagulates at 160° F.; boiling beef in water at 212° F. will not extract the albumen; it only serves to lock it up the tighter. No nutritive value, of any consequence, can, therefore, be imparted to the water in which beef is boiled. This water cannot support life. Beef-tea has gone into disrepute along with the extracts and essences: stimulants—little more.

But why cannot a sick man digest meat? Is it not because an impaired stomach refuses to break down the organized fibre, and to set free the albumen? The raw white of an egg is easily assimilated even when milk is rejected. Why not, then, use meat before it is organized at all, viz., blood? Blood is but meat in a liquid form, every ounce containing as much solid matter as an ounce of meat. If digested and assimilated, there is no reason to suppose that it will not feed the tissues in the same manner as beef. Blood was designed by nature as tissue-food.

But it is argued that blood is disgusting to patients, and few will take the prescription. This is admitted; but the same argument holds good with cod-liver oil. Both can be disguised, however. If defibrinated blood be first dried,* afterward it can be dissolved in a suitable vehicle, to render it palatable. Of several such vehicles subjected to experiment, a mixture of brandy and glycerine seems best. One part of each to four parts of water, in which the desiccated blood is first dissolved, furnished a pleasant mixture. The solution can be made of the same strength as the original blood, and is easily tolerated by the stomach. About a drachm of the powder in each fluid ounce of the finished preparation should be employed.

Blood, as an article of diet, has long been used by the Germans in various ways. Patients who drink it at the abattoirs for wasting diseases are frequently greatly benefited by the practice; and at the various hospitals and public institutions in New York, where it is given *per orem*, there is no hesitancy in the expression that benefit accrues from its use.

The article quaffed at the butcher's shambles is always defibrinated. This is accomplished by stirring and then removing the stringy fibrin. The fibrin in this condition, from its resemblance, is called veins by the unscientific butchers. The blood is then ready for drinking, and is said to taste much like warm fresh milk. Such a small amount of nitrogenous constituents is lost by defibrinization that the value of the blood as a nutrient is not materially lessened.

26 West Sixteenth Street.

Medical Legislation.—The State Senate has passed the bills regulating the sale of poisons, and to secure registration in New York City of children born during temporary absence of the parents from that city.

*See article on New Method of Rectal Alimentation, Medical Record, Jan. 3, 1880, for description of desiccated blood.

Progress of Medical Science.

The Influence of Age on the Result of Amputations.—From results obtained under Lister's method at Volkmann's clinic, at Halle, Obert claims to have shown that age has absolutely no influence on the result of amputations, provided that two things can be avoided, viz., septic processes and loss of blood. He believes that the elimination of both these elements of danger is at present easily accomplished. Immunity from septic infection may be invariably secured by a conscientious carrying out of Lister's treatment. Hemorrhage, on the other hand, can be reduced to a minimum by Esmarch's method, and thorough arrest of hemorrhage after removal of the bandage. In corroboration of his views, Obert compares the results of amputations performed on old people (over fifty years of age) with similar operations on others, without reference to age. Both classes of patients were treated by the Lister method. Of 220 individuals operated on since March, 1874, nine, i. e., 4.1 per cent., died. In the 48 cases where the patient had passed the fiftieth year the deaths were two in number, this being equivalent to 4.17 per cent. Hence, the issue as regards life stands in no relation to the age of the person. Of these 48 cases were between 51 and 60 years of age, 13 between 61 and 70, 4 between 71 and 80, and one patient, who recovered after amputation of the thigh, was 84 years old. As regards the extremities involved in these cases, he gives the following details: 7 amputations of forearm, 6 of the arm, 1 exarticulation of the humerus, 7 partial amputations of the foot, 13 amputations of leg (with 2 deaths), and 14 amputations of the thigh. In one case the fatal issue was determined by the supervention of tetanus. In the only other instance of death there was an incomplete recovery from the effects of the narcosis, the subject being a drunkard. Healing took place in every instance without the slightest reaction. In fifty per cent of the whole number union was effected by an absolutely primary intention; in the remainder healing was delayed by limited marginal gangrene of the flaps, or slight fistulous suppuration.—*Centralblatt fur Chir.*, Jan. 10, 1880.

Adenoma of the Breast.—From a careful study of seventeen cases of this affection, Dr. S. W. Gross, of Philadelphia, dissents from the most accepted definition of adenoma, which describes it as a simple exaggeration of the normal physiological structure of the gland, the only difference being a sparse formation of connective tissue in the morbid growth. He has found but one specimen which approaches this description, and in that the likeness to the normal structure was far from striking, the efforts of nature having been limited to the excessive production of glandular apparatus, without attempting to unite the acini into distinct lobules attached to excretory ducts. The remaining sixteen examples all showed either marked enlargement of the acini, or offshoots from the dilated and cystic acini, in the form of tubes or ducts, with aberrations in the character of their investing epithelium. Thus, in ten instances, the tumor was composed of excessively dilated acini packed with polymorphous cells, which could be expressed from the cut surfaces of the growths, as atheromatous moulds or plugs. In the other six specimens the ducts predominated, and these arose, as he demonstrated in a paper published in the *American Journal of Medical Sciences* for October, 1879, from the dilated acini by a process of budding and extension into the scant connective tissue of the gland. In these cystic tubular adenomas, the epithelium, instead of being polyhedral, assumes a cylindrical or columnar form. Hence, he concludes, true adenoma consists not only in a disorderly hyperplasia of the lacteal glands, but also in deviations of the form, size, and arrangement of the epithelium, on which account it is atypical in the strict sense of that term. It is characterized by its firm consistence, nodular outline, slow and equable growth; its occurrence in child bearing females toward the thirty-fifth year; limited discoloration and adhesion of the skin, with ulceration late in the disease, and freedom from retraction of the nipple; prominence of the subcutaneous veins, attachment to the chest, and involvement of the axillary lymphatic glands. If the tumor has been preceded by a discharge from the nipple, the probabilities in favor of its being an adenoma are greatly increased. Adenoma evinces a decided tendency to recur, but there is no evidence going to show that it infects distant organs.—*Philadelphia Medical Times*, Jan. 31, 1880.

Acute Joint Affections in Diphtheria.—Dr. E. A. Kelley, of Waterford, Ohio, reports two cases of acute affection of the large joints occurring during the course of diphtheria. The first made its appearance on the tenth day of a mild attack of diphtheria, and was characterized by a tense and painful swelling of the joints, moist skin, with occasional profuse perspiration at night; temp., 101° F.; pulse, 100. The second case differed only in its appearance on the fourth day of the disease, and an evening temperature of 102° F. In neither case was there any actual paralysis; in each, voluntary motion was restrained on account of the ensuing excruciating pain. The enlargement was not a simple passive œdema, but plainly inflammatory. It displayed, besides pain, heat, redness, and swelling, marked hyperæsthesia and a local, minute, papilliform eruption. In each the knees and shoulder-joints were the most acutely attacked. The radio-carpal and tibio-tarsal articulations were but slightly involved; the distal small joints not at all. The diphtheritic process, although moderate, was distinctly marked in each. They were treated with an alterative at bedtime, followed by a brisk saline in the morning; sedatives to control pain and procure rest, and a cooling diuretic; with, in one case, full doses of the tincture of the chloride of iron, and in the other, quinine. A rapid diminution of the symptoms ensued, and they entirely disappeared on the fourth day, a speedy convalescence following.—*Cincinnati Lancet and Clinic*, Jan. 31, 1880.

Concussion of the Spine.—At a recent meeting of the Boston Society for Medical Improvement, Dr. R. M. Hodges read a paper on "So-called Concussion of the Spine," the purpose of which was to show that we have no knowledge justifying the proposition that what is called "concussion of the spine" is due to a molecular disarrangement of the substance of the cord by an assumed shake or jar; that vascular disturbances (anæmia, hyperæmia, hemorrhages, spinal apoplexy), followed by meningitis, myelitis, or degenerative changes of the spinal cord, are shown by pathological as well as physiological histology, by experimental pathology, and, to a certain extent, by post-mortem examinations, to be the true cause of symptoms hitherto commonly designated as "concussion of the spine;" that, in spite of hysteria and exaggerated and fraudulent manifestations frequently

accompanying these cases, the reality, if not the precise character, of any existing spinal lesion can almost always be recognized by objective and demonstrable symptoms; that the prognosis of this class of spinal injuries in severe, as well as slight instances, is far more favorable than is usually supposed; that, as a plea in suits for damages, "concussion of the spine" does not, and is not entitled to have the weight and importance usually attached to it; that erroneous impressions in regard to the severity of this injury, prevalent in this country as well as in England, have been fostered by Mr. Erichsen's book on "Concussion and Nervous Shock," which presents an exaggerated picture of its symptoms and consequences, not justified by our present knowledge of the subject.

In the discussion which followed the reading of this paper, exception was taken to the assertion of the unmistakable nature of the objective phenomena. Dr. Cheever could recall but two cases in which this was true. In one there was paralysis agitans, which could not be assumed; in the other there was mottling of the skin, caused by minute capillary congestions, and due to true vaso-motor paralysis. Dr. Putnam did not think that definite lesions, such as might eventually cause myelitis, would necessarily reveal themselves by definite symptoms in the early stages of the case, and called attention in this connection to the experiments of Duret and others upon concussion of the brain. The setting aside of the term "concussion of the spinal cord" as having no definite significance was opposed by Dr. T. B. Curtis. He considered it a clinical designation, applying to certain etiological conditions; and, as such, is appropriately used when an individual has been subjected to an external violence which may have left no physical signs of injury, but which, as we know by experience, involves a liability to the subsequent development of grave secondary affections of the spinal cord—namely, myelitis, meningitis, and sclerosis. The symptoms to be observed are mainly the well-known and unequivocal symptoms of myelitis, followed by ascending and descending sclerosis. Of these, some, as the disturbances of mobility and sensibility, are subjective and therefore capable of exaggeration and simulation; others, consisting principally of trophic disturbances, are objective. The prognosis in these cases, Dr. Curtis is disposed to think, is not as unfavorable as is usually supposed. Recoveries from myelitis, meningitis, and sclerosis, with long-standing paraplegia, followed by spasmodic retraction of the legs, are by no means rare. In conclusion, he proposes a new definition of spinal concussion. The term should denote a condition resulting from external violence, in which the patient is liable to be affected with certain definite and recognizable secondary diseases of the spinal cord, namely, myelitis, meningitis, and sclerosis.—*Boston Medical and Surgical Journal*, Feb. 5, 1880.

The Night-Sweats of Phthisis.—Dr. Köhnhorn reports two cases which had resisted the successive employment of quinine, atropia, digitalis, boletus caricis, folia salviæ, and various external lavements, frictions, inunctions, etc. These cases were quickly cured by the external application of a powder prepared after the following formula:

℞. Acid salicyl..... (3.0) gr. 48
Amyl..... (10.0) ʒ iiss.
Talc earth..... (87.0) ʒ iij.
M. F. pulv.

The entire surface of the body is powdered over with this preparation. To avoid the excitation of coughing by the salicylic acid, patients are directed to apply a handkerchief to the nose and mouth during its application. The same powder has been employed in the army for the treatment of hyperidrosis of the feet.—*Berl. klin. Woch.*, No. 1, 1880. *Allg. med. Cent.-Zeit.*, Jan. 10, 1880.

A New Instrument for Mechanical Compression of the Testicle.—The difficulty of obtaining and maintaining equable compression of the testicle has been recognized by all surgeons. To obviate the disadvantages of adhesive strapping and rubber bandages, Dr. Octavius A. White, of this city, has devised a new mechanical appliance. It consists of a very light shell of hard rubber, moulded so as to receive within its cavity the swollen testicle and its scrotal coverings. About one-third of the upper portion is bevelled off, this shape being found, by experience, to afford the best mechanical support to the pendulous organ. A cleft runs down the front of the shield, which permits free overlapping of the thin edges, thus making ample provision for all necessary reinforcement of compression which may be required during the management of the case. The edge surrounding the neck of the tumor is everted to prevent cutting. In applying the instrument, it is desirable that there should be a certain amount of local depletion, which may be obtained by a short rest in the recumbent posture. A shield of the proper size is then fitted to the affected organ, and a narrow roll or bandage is passed around the upper part of the instrument, to prevent the testicle from slipping upward out of the shell during the succeeding manipulation, which consists simply of tightening the lacing strings connecting the two free edges made by the cleft described above. The prominent features of this scrotal shield, support, and compressor, are its remarkable lightness, the weight not exceeding eight grammes; great readiness and facility of application; complete command afforded the surgeon over the degree and duration of direct pressure to the testicle; firmness and general diffusion of the pressure; entire painlessness attending and during its application and removal, even though the scrotal sac be well covered by hair; and finally, perfect cleanliness, the fixture being easily taken off and washed. Among the diseases in which the continued use of this instrument has been productive of speedy and highly satisfactory results, are mentioned varicocele and neuralgia of the testis. The instrument is manufactured by G. Tiemann & Co., of this city.—*Boston Medical and Surgical Journal*, Jan. 29, 1880.

Abnormally High Temperatures.—The case reported in 1875, by Mr. John W. Teale, in which, subsequent to severe spinal injury, the temperature for sixty days ranged between 108° F. and 122° F. (*see* Vol. 10, Medical Record, page 270), has been received with so much scepticism by scientific men in London, that, in a recent paper on this subject, by Dr. Donkin, no mention of it is made. This induced Mr. Teale to reaffirm the correctness of his observations, and he states that this patient, during a relapse, came under the care of Mr. Hind, of Stockton, who, on one occasion, found the heat in the axilla so great that the mercury broke the tube at the top of the instrument. Dr. Donkin's interesting series of cases is claimed as strong corroborative proof by Mr. Teale, who thinks the following points fully established: 1. Temperatures above the degree formerly supposed to be necessarily fatal, do

sometimes occur without a fatal issue, may even with great extreme peril to life. 2. Such exceptional and excessive temperatures, as a rule, end in recovery. 3. The conditions of body in these cases appear to be distinct from the conditions existing in fevers, in which the rule as to the extreme peril of temperatures of 107° and upward remains unassailed.—*The British Medical Journal*, Jan. 24, 1880.

ACUTE MUSCULAR ATROPHY.—At a recent clinical lecture at the Jefferson Medical College Hospital, Dr. Bartholow presented a typical case of this disease, which was associated with syphilis. But little relief can be hoped for, except, as in this case, where the disease was due to a specific cause. When the wasting is far advanced, the curability of the case can be determined by the electric contractility of the muscles. So long as the stimulation of electricity elicits response there is hopes that sufficient muscular tissue is left to afford some good result, if proper treatment be employed. In this connection it is well to bear in mind that the muscles may respond to a slowly interrupted galvanic current, when they would be unaffected by a faradic current.—*The Clinical Notes*, Feb. 7, 1880.

EPITHELIOMA OF THE CERVIX UTERI.—The advantages to be gained from such an instrument as Paequelin's thermo-cautery, in operations for epithelioma and other cancerous affections of the uterus, have been limited by the difficulty experienced in protecting the vagina and vulva from the heated shank of the knife. When a wooden sheath is used the wood may be ignited and the patient badly burned. The use of wet cloths give rise to so much steam as to obscure the view, and besides, the protection afforded is very incomplete. Asbestos answers well for about three minutes, when it becomes hot and useless. To obviate these difficulties Dr. Wilson, of Baltimore, has devised a hollow metallic shield through which a constant stream of cold water flows. This protector is said to answer the purpose admirably, the soft parts being perfectly guarded from the effects of the heat, while the knife itself is capable of being raised to any desired temperature. Owing to the difference in the length and construction of the different knife-shanks, it is found necessary to have more than one of "Wilson's anti-thermic shields" for each set of knives. For the blunt cautery a hinged shield has been made, which necessitates a separate water-supply for each side. All this difficulty may be readily avoided by a slight modification of the shafts of the knives and canteries, which will not in any way impair their usefulness. The advantages of Paequelin's instrument over the electro-cautery, it is claimed, are not only its greater cheapness, portability, and reliability, but also its greater effectiveness, it being possible to advance farther and more safely into the uterus and the walls of the vagina with this than with the electric wire. The absence of hemorrhage and the complete removal of all septic material, the closure of the divided vessels, thus preventing the absorption of septic germs, are its advantages over all cutting instruments.

SURGICAL STATISTICS WITH AND WITHOUT LISTERISM.—The statistics given by Mr. Lister of the results from his operations performed under strict antiseptic precautions, have called forth a reply from the pen of Mr. James Spence, of Edinburgh. Mr. Lister took a period of five and three-quarter years, during the period when he says his antiseptic system has been more perfectly carried out. During that time he had performed eighty major amputations, with nine deaths. Claiming the same right, Mr Spence takes a period before the antiseptic system was heard of, when he used the very simplest dressings. He finds that out of sixty three major amputations he had three deaths, during the same period, out of twenty three excisions there was but one death. Mr Spence objects to Mr Lister's elimination of fatal cases, by which means the claim is made that "no patient died from a preventable disease," and he reminds Mr. Lister of a fatal case of amputation at the shoulder joint, of which no mention had been made. Mr. Lister's experience in mounted fractures of the femur is thought to be unusually extensive, for during a much longer period Mr. Spence has met with but two such cases, and one of these was rather a case of delayed union than non-union. Both were operated upon successfully, and without giving rise to constitutional symptoms. According to Mr. Spence, Mr. Lister does not state clearly the results of his operations as regards union, but Mr. Spence knows of one case in which the operation was repeated once or twice without union resulting. Of the resection of bones during acute necrosis, Mr Lister gives no examples; in this class of cases Mr Spence has been uniformly successful, and no spray or special antiseptic method has been used. Nor does Mr Lister give his results in excision of tumors, although Mr Spence claims that the large cut surface exposed to the air during these operations render this class of cases, according to the germ theory, especially liable to infection; in Mr. Spence's experience it is the exception for these cases not to do well. In regard to the application of the antiseptic system to chronic abscesses, Mr. Lister is asked to explain the fact that when he left the Edinburgh Infirmary there remained in his wards, uncured, some seventeen of these cases. Mr. Spence found in his experience that, as regards constitutional symptoms, these case did well under the antiseptic system, but not as to cure or arrest of discharge.—*The British Medical Journal*, Jan. 24, 1880.

CASE OF DILATATION OF THE STOMACH SUCCESSFULLY TREATED BY THE SYPHON STOMACH-TUBE.—The topical treatment of certain diseases of the stomach, when accompanied by obstinate vomiting, as first suggested by Kussmaul and Leube in Germany, is illustrated by a successful case which occurred in the practice of Dr. W. Sweddin, of Bath. The patient, aged forty-eight, during an attack of scarlatina in 1854, had complained of a pain in the stomach, which was confined to a small spot about the size of the end of one's finger, and was accompanied by general dyspeptic symptoms. Some time in 1855, or a year after the first symptoms made their appearance, he began to vomit, and did so several times a day for many months in succession. He was incapacitated from working each year, for a period extending from eight weeks to eight months. Various drugs had been employed, among others bismuth, both in solid and liquid form, strychnia and iron, citrate of magnesia, etc., each of which only gave him temporary relief. When seen in April, 1879, there were distinct evidences of dilatation of the stomach. He vomited several times every other day, often as much as a basinful at a time, and it was so sour that it felt as if "it would take the skin off his mouth." The vomited matter commenced to ferment if allowed to stand for a short time, and when a small quantity of bicarbonate of soda was added, active effervescence would take place. The bowels were so much constipated that it was often necessary

to use enemata. The pain was worse over the hypochondriac and inguinal regions, and sometimes, worst of all, over the lower dorsal vertebræ. He was unable to work. The treatment with the syphon stomach-tube was commenced on April 30th. The instrument employed was a gum-elastic tube from the ordinary bivalve stomach-pump. Retching was at first caused by the introduction of the tube, and a pint of sour turbid fluid flowed through the syphon, which felt very hot. A solution of carbonate of soda (3 i. to Oi.) was then injected into the organ. On the next day there was marked improvement, and when the instrument was introduced there was not so much tendency to vomit as before. Up to May 16th the tube was employed daily; he had been quite free from pain for over a week, and felt much better than at any time for the previous six months. The tube was introduced for a period extending over a little more than two months, sometimes every other day, and later every third day. At the end of that time he felt quite well and was able to resume work.—*British Medical Journal*, Jan. 10, 1880.

Japanese River or Flood Fever.—A new disease is said to prevail in the months of July and August in the flooded districts of Japan, and is claimed to be acute and infectious, but not contagious. The period of incubation lasts from four to seven days, generally manifesting itself on the sixth after coming to an infected region, or handling hemp brought from there. The first symptom is a severe rigor, followed by fever; these symptoms return in the course of the day, and are accompanied with headache, throbbing of the temples, loss of appetite, and extreme prostration. On the second day the characteristic symptom makes its appearance—viz., tenderness of either the inguinal, axillary, or cervical lymphatic glands. A dusky spot covered with a dry scale or scab, will be found at the periphery of the region in which the affected glands are situated, and this is pathognomonic of the disease. The face is red while in the recumbent position, pale when erect. The patients continually whimper throughout the disease, and they have an intense horror of the slightest breath of air, or of a drop of water being brought in contact with their skin. The pulse is 80 in men, 100 in women, and the temperature varies from 101° to 103° F. Where the skin is moist there is a small, round, blackish spot, with a slight depression in the centre; it has a well-defined margin, the adjacent surface being soft and livid red. The tissues in the neighborhood are not raised or tender. In a few days the crust can be removed and a round crater-like ulcer is left, having at its bottom a tough, fatty mass. The glands are swollen, but no distinctly inflamed lymphatics can be made out. There is generally catarrhal conjunctivitis—also cough with catarrhal râles. No throat lesions are present. The spleen is enlarged; no albumen in the urine, and the bowels are constipated. Fever is continuous, and increases; on the evening of the fifth or sixth day being 104°. The eruption makes its appearance on the sixth or seventh day, accompanied by an increase of fever and restlessness. The exanthem is first seen on the temples and cheeks as large, flat papules of dark red color, with smaller lichenous spots between, resembling measles. The forearms, legs, and back are next affected, the thighs and arms are very indistinctly marked, and the throat and neck generally remain free. The eruption lasts from four to seven days, sometimes only one. The disease is now at its height, and there is often delirium at night, deafness, dry lips and tongue. The ulcer suppurates. About the end of the second week remissions occur, diarrhœa supervenes, and convalescence takes place. Fatal cases are accompanied with high fever, copious bloody stools, coma, mania, failure of the heart's action, and œdema of the lungs. About eight per cent. of those living in the affected districts have the disease, and the mortality is about fifteen per cent.—*Lancet*, Jan. 10, 1880.

On the Origin of Tetanus.—In an investigation of this subject which has received but comparatively little attention, Surgeon-Major J. J. L. Ratton, of Madras, says that the group of symptoms known as tetanus is produced by peripheral nerve-irritation. This fact is shown by the morbid anatomy of the disease, and also that when treatment is directed toward the removal of this phenomenon, a cure is effected unless the lesions have existed for too long a time. To show that the disease is caused by peripheral nerve-irritation, cases are mentioned, one where a rusty nail, piercing the foot of a midshipman, produced all the symptoms of acute tetanus, and which was relieved by division of the posterior tibial nerve. Another case is cited in which injury to the supraorbital nerve produced all the symptoms of the disease, and division of that nerve effected a cure. As to the cases of so-called idiopathic tetanus, they are either the result of worms, or are due to puerperal or menstrual troubles in which the peripheral nerves are irritated. It is also shown that the symptoms of tetanus are those of constant irritation of the excito-motor system, with great exaltation of the reflex function of the cord and medulla, and that the spasms are brought on by the slightest stimulus to the peripheral nerves, while the brain is clear and unaffected. The pathological changes found after death fully corroborate the above view held as to the origin of the disease, because the continued nerve-irritation, reacting upon the medulla and causing tonic spasms, would, up to a certain point, give no evidence of morbid change. If, however, the irritation were continued, hyperæmia with molecular changes, and often inflammation would result, and this is what is seen.—*Brain*, Jan. 1880.

The Presence of Fat in the Urine.—In his work on urinary diseases, Dr. Roberts says that the discharge of quantities of liquid fat by the kidneys is so uncommon that its occurrence has been doubted. Dr. Oliver, of Newcastle-upon-Tyne, cites two examples of this rare condition. The first was that of a woman, the subject of fits, epileptiform in character, whose urine, when examined, was found to be milky in appearance, the opacity being increased on heating, and not affected by the addition of nitric acid. After standing for some hours, a gelatinous-looking coagulum, somewhat flocculent at the sides, appeared suspended in the fluid. This, when examined microscopically, was found to consist of fat-globules in great number. There were no tube-casts, and but few epithelial cells and lymphoid corpuscles. The specific gravity was 1014, and reaction acid. The urine was examined at other times, with essentially the same results. The other instance was in a woman troubled with epileptic fits. In this patient, albumen was discovered in the urine at times; but when the report was made, none could be detected, while numbers of fat-globules were present. In each of the patients the appearances presented by the urine were similar to those shown in an examination of milk.—*British Medical Journal*, December 27, 1879.

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STATE MEDICINE AND THE MEDICAL PROFESSION.

THE unusually large number of bills relating to medical matters, now before Congress and various State legislatures, is an interesting and significant fact. We find that at present, in Congress, there is legislation being asked for the National Board of Health, such as will give it greater power and a wider scope of influence. In addition to this, the Treasury Department is urging the necessity of laws to establish a veterinary sanitary commission; there are also bills to place the Marine Hospital Service on a higher and firmer basis, and to secure physical examination of those who serve on our merchant vessels. The Agricultural Bureau is pressing its claims for money and power with which to do more work in veterinary science; and the State Department is likely to add a medical side to the duties of its foreign officers, obliging them to keep a watch upon the sanitary condition of the ports with which our country is in communication. The subject of inter-State commerce is now being discussed, and has received most serious examination on account of the medical questions that aroused it.

In the States the importance of State and local health boards has already become widely appreciated. Questions, also, of medical registration, medical education, medical charity, and even of proper medical treatment in public institutions, occupy the attention of our law-makers, and, with the various other branches of State medicine, make a very respectable part of the legislator's work.

It is not to be supposed that this past year is so markedly different from all others; but, on looking back no more than ten years, one cannot fail to appreciate a great change and a great progress. The influence of medical men and medical science is extending. It reaches where it has never reached before, and it is rising to a prominence in political and social matters which is now becoming noticeable, and which every physician ought personally to appreciate and understand.

This tendency is one which is both just to our profession and beneficial to the State. The physician is a person who is obliged to undergo a good deal of mental discipline in passing through his ordinary course of study, and his afterwork is of a kind likely to develop all his faculties, strengthen his character, and elevate him morally. He ought, therefore, to be an important factor in society, aside from his therapeutical or purely scientific work. On the other hand, the benefit to society, from having such a class actively engaged for its general welfare, is perfectly apparent.

The statements thus made as to the growing prominence of the medical profession may appear to be at variance with the melancholy facts regarding the over-supply of doctors and the superfœtating characteristics of our medical colleges, to which we have at other times made reference. But it should be remembered that a large part of the evils produced by this over-competition are personal ones. They fall upon the younger members of the profession rather than on the older ones, who represent its character and influence. And, besides this, the fact that the profession is overcrowded carries a certain amount of good with its great evils. The law of the survival of the fittest applies to struggling doctors as well as to the organic kingdom generally, and the larger the number the more intense is the struggle and the greater the success of those who come out ahead. It is an unfortunate fact, to be sure, that the fittest is not always the best, but is liable to be the one who can talk the loudest or advertise with the most discretion. Nevertheless, there must always be something of good as well as of strength in the man who wins a hard race; and, as society grows more intelligent, this good will become a larger and more essential element. In addition to all this, the present surplus of medical practitioners, besides stimulating competitive effort, furnishes many well-trained minds, whose energies the mere compounding of healing mixtures does not wholly absorb. These will naturally desire to have the field occupied by medicine enlarged, and we may expect an impetus to medical statesmanship from them.

Thus it will be seen that this surplus of doctors, although it causes a dangerous rivalry, also prevents any but able men reaching the top, and helps to widen the field in which medical training and knowledge may be applied. The evil is not to be justified in the least, but we can say that it carries enough good with it to negative much of the bad.

It is a fact, at any rate, that there is this tendency "broadly to bourgeon;" and one of the results of it

must be that medical men will take a greater and more active interest in public affairs.

A venerable professor in a college in this city used to tell his students to shun political life. If by this it was meant to shun the life of a politician, the advice was good. But it is neither public-spirited nor wise to advise any class of persons to avoid politics. Certainly doctors should not do so; and if they would pay a little more attention to primaries and the political condition about them, they would not have to complain of the difficulties of securing the legislation they desire, nor would the influence of quacks prevail so much in the councils of our rulers. We hear of a health commissioner in a Western State who is a most unblushing charlatan; the Board of Health of Georgia has collapsed, because the State legislature, in spite of the protests of the profession, would not appropriate the pittance necessary for its running expenses. Other States are cramped by the same ignorance on the part of the public; while the influence of the profession, though growing, is still weak, and, meanwhile, the advertising quack gets rich and influential, rides bravely into our legislative halls, and helps to make laws for the regular practitioner.

We repeat, then, that the profession must, for its own protection, take a more prominent part in public affairs and legislation. State medicine must yet form an important branch of statecraft, and the wider duties which this department of knowledge brings ought to be thoroughly learned and promptly assumed by us. Nothing should be neglected that will give a wider and higher scope to the application of medical science. For there is, after all, a small side to the work of our profession, as well as a great one. There is a certain pettiness in the daily routine of prescribing pills to the bilious and plasters to the rheumatic—a routine that represents a portion of the "services cheerfully rendered to the suffering humanity" of a dispensary class. There is not often much intellectual tension called out in treating an incised wound or ligating a pile. And the absence of any great dignity or intellectuality in this part of our work, useful though it is, is quite keenly appreciated by the laity; so that the average doctor grows gray in an atmosphere of threadbare jokes upon the frailer points in his profession. We will probably never rise entirely above these facetiæ, the sense of humor is so exquisitely lacking in a certain portion of the community. But the feeling that what is good in our profession is becoming better—that its dignity is increasing and its usefulness extending—all this will prove something of a balm if any one is sensitive, and will at any rate furnish assurance and stimulus to all who are in earnest. It will not be many years before the great utility of State medicine will be associated with the idea of the doctor, as closely, perhaps, as is now the potency of pills.

THE ANTI-VIVISECTION ENTERPRISE.

In our last issue we mentioned the adverse report of the Assembly Committee on the bill introduced some weeks ago, at the instance of Mr. Bergh, to prohibit vivisection in medical investigations. This disposes of the most determined and unreasonable attack which has been made in this country for some years upon the experimental element in medical progress. The bill was a very short one, but could hardly have been more stringent or more comprehensive. It consisted only of three sections, the first of which declared that any act of vivisection "performed upon any living animal" should constitute a misdemeanor; while the second defined the term vivisection as including "every investigation, experiment, or demonstration producing, *or of a nature to produce*, pain or disease in any living animal;" and the third provided that the proposed act should take effect immediately. It was accompanied by a memorial from Mr. Bergh, in which he informed the Legislature that experiments of this kind were without any practical or beneficial result; that they were demoralizing both to the medical men and the students; and that they had been the subject of "universal condemnation by the more eminent members of the medical profession in Europe." The bill was presented, at Mr. Bergh's request, on January 21st, in the Senate by Hon. Robert H. Strahan, and in the Assembly by Hon. Edward Mitchell, and was referred in both houses to the Judiciary Committee. Afterward Mr. Bergh was granted a hearing on the subject before a meeting of the joint committees in the Assembly Chamber, with every allowance for oratorical display and pictorial illustration of what he calls the "atrocities of the dissecting-room." It cannot be said that he was hampered or obstructed in any way in his attempt to urge upon the Legislature the passage of the bill.

On the other hand, the medical profession were not idle. To them the subject is so familiar, and the value of experiments on animals is so fully demonstrated by the experience of centuries, that it seems almost a work of supererogation to expose the sophistries and misrepresentations of the anti-vivisection reformers; but it becomes a necessity to do so, when the matter is thrust upon the attention of the Legislature. The State Medical Society took action upon the subject at its annual meeting in February, and appointed a permanent committee to take charge of the interests of medical progress which were threatened by the bill. All the principal medical societies in the State united in a memorial to the Legislature remonstrating against the proposed law, and a similar remonstrance was prepared by the medical colleges. These two memorials, which were printed in full in our issue of February 28th, were presented to the Legislature by the Hon. Mr. Mitchell, on February 20th; and the profession were

also accorded the privilege, as was right and proper, of appearing before the joint committee in opposition to the views presented by Mr Burgh. The matter seems to have had a complete ventilation, so far as the Legislature is concerned, and the result was that on the 27th of February the Judiciary Committee of the Assembly reported the bill adversely, and the Assembly at once agreed to the report with only a single dissenting voice. We understand that the Committee were unanimous in their opinion against the bill. The Hon. Mr. Mitchell, by whom it was introduced, finally moved in the Committee to report against it, and also moved in the Assembly to accept the adverse report. The Senate Committee have as yet made no report, and, very likely, will not make any; but it is understood that their opinion is equally decided against the bill. This attempt to abolish the experimental method in medical science has therefore met with the failure which it deserves.

COMPULSORY REGISTRATION OF INFECTIOUS DISEASES.

Efforts to secure the passage of laws compelling the registration of infectious diseases have been made by the British Medical Association, and its work has already met with considerable success. Parliamentary powers have been obtained by fifteen towns in England and Scotland, obliging notification to the proper authorities of infectious diseases as soon as they occur.

Such compulsory notification exists in this country wherever we have city health boards. In most cases, also, the diseases are registered, the record being regularly published. In this respect we are ahead of the British cities.

In two particulars, however, their laws are the better. Thus, in England and Scotland, the notification of infectious diseases is made compulsory on the occupier or person having the management or control of the building in which the disease occurs. The doctor has only to certify to the existence of the disease and then hand the paper over to the householder. For this he is paid from fifty to seventy-five cents. With us, the doctor not only has the responsibility of filling up and forwarding the certificate, but he receives no remuneration for his work. This is not just, and although it is not a very great matter, we do not believe that medical men should be imposed upon unnecessarily in any case. Let them take concerted action upon the subject and the remedy could probably be obtained.

SUSPENDED ANIMATION AND THE HIBERNATION OF ANIMALS.

Not long ago an article appeared in an Australian journal describing a process by which animals could be frozen and kept alive indefinitely in this condition; when the proper time arrived they could be brought to life and then killed for food. A large establishment for the consuming sheep and pigs, and then transporting them to England, was declared to have been erected, and the details of the work were described with great care and minuteness. The animals were first curarized and then frozen solid. When they were to be revived a preparation of the root of the "[illegible]" was injected into the veins, warmth was gradually applied, until the normal temperature was reached, and then by artificial respiration the functions of life were restored, and the lambs and pigs skipped about with all the liveliness of their auto-glacial condition. The story was a hoax, but it was a very clever one, and had so much of scientific truth worked in with it, that some very cautious journals at first indorsed it as true.

The idea of being able to accomplish anything like a prolonged suspension, almost complete, of life in warm blooded animals, rests chiefly upon the known facts of hibernation. A total suspension of vital functions has been accomplished, in all probability, in cold-blooded animals, as in well-attested cases where fish have been frozen and then thawed out and brought to life again. It cannot, perhaps, be absolutely denied that there are conditions under which warm-blooded animals may be treated in the same way. It is a fact, at any rate, that a very great lowering, an almost complete suspension of vital action, is part of the physiological history of some animals. And, according to Dr. B. W. Richardson, if the muscular and nervous irritability could be gradually and synchronously reduced, a condition might finally be reached, in all animals, so nearly resembling a total suspension of life as to be practically undistinguishable from it. The nearest approach to such a condition, however, now known, is the phenomena of hibernation.

Hibernation is, in most respects, only an exaggeration of the physiological condition of sleep, and is appropriately called by the Germans the winter-sleep or summer-sleep of animals. It is most frequently seen in the rodents, especially the bat, marmot, and hedge-hog. We find it, however, in more highly developed animals, as well as in many reptiles. It is not the torpor which comes from cold; indeed, in the tropics, the process often occurs in summer. It is rather a provision of nature, by which the animal is enabled to bridge over seasons when there is no food to be had. Or, to speak more nearly in accordance with Darwinian data, it is a condition brought about by the gradual adaptation of the animal to a foodless environment. In this state, in the bat, for instance, the respiration almost entirely ceases, and only venous blood circulates through the system; the heart beats but fifteen times in a minute, the temperature sinks till it is only two or three degrees above the surrounding atmosphere, and excretion nearly ceases. According to Marshall Hall, who

studied the subject with great care, the muscular irritability is increased in proportion as the other vital functions are lowered. This he considered to be the peculiar fact which allowed life to continue, for the venous blood, passing through the heart, would not be sufficient to irritate it to contractions were its muscular tissue not abnormally sensitive. This does not represent the whole truth, however, since it is now known that a heart contracts, other things being equal, in proportion as it is well nourished. With the slight nourishment furnished it by the venous blood, its contractile efforts would naturally be lowered. During the long periods of hibernation into which some animals enter, the system must supply its very small requirements from the excess of tissue, particularly the adipose, which it had previously accumulated. It is asserted that in bears the weight after hibernation is not greatly diminished. This, however, if true, only proves to how low an ebb the vital actions sink.

It is assumed that if hibernation is possible in the highly-developed of the lower animals, it may be sometimes induced artificially, or by disease, in man. The former possibility has been lately claimed by a, possibly hypothetical, Dr. Tanner, in the public newspapers. He offered to prove, by actual experiment in this city, that he can live for thirty days without food. We know that in certain neurotic diseases patients exist for a long time on extremely small quantities of food. In cataleptic conditions there is occasionally a general lowering of the systemic activity, which corresponds, in some respects, to the condition of hibernation. In no case, however, so far as we are aware, have the phenomena of almost total suspension of respiration, of extreme slowing and weakening of the heart, and of lowering of the body temperature to only a few degrees above that of the surrounding air, been combined. Therefore, we may say that as yet, in man, only a partial imitation of hibernation has been accomplished, either by act of will, by force of disease, or by use of drugs.

We may logically infer, moreover, that, as man has never had an environment necessitating hibernation, neither has he now the power of entering such a state. This power in the bear, for example, has been the result of long ages of survival of the fittest. There are no grounds, therefore, for believing in those who claim hibernating powers, whether they be fasting girls or quasi-scientists.

In saying this we refer, of course, to that complete form of hibernation which characterizes the bat, the marmot, and like animals. Hibernation, as we have stated, differs from sleep chiefly in degree, and not in kind; therefore, man does approach the condition slightly every day. Some persons may also have the power to carry the process very far and even simulate complete hibernation as regards certain functions; but that they can imitate it in every respect is theoretically improbable and practically unproved.

As far as the production of so-called suspended animation in other non-hibernating, warm-blooded animals, is concerned, the question stands the same as with man. Here, however, experiment may be tried, and the field is perhaps a legitimate one.

THE CONTRACT SYSTEM IN KANSAS.

THE Kansas laws give the contract for medical care of its paupers to the lowest competent bidder. It is now proposed that the bid shall include the medicines also. The *Kansas Medical Index* very justly protests against such an arrangement. The contract-doctor system is bad enough of itself. In places where there is any competition, the contracts go for a miserable sum; patients become neglected, and the doctors overworked, impoverished, and demoralized. Such has been the result in Ireland; and the danger of such a result is present everywhere that the system is introduced. It is, of course, still worse when the drugs have to be supplied by the doctor. The temptation to use cheap articles must be almost irresistible; and although doctors are, of course, better than any other class of men, they are still human. The *Index* is on the right track, and we hope it may be successful in preventing the adoption of an unjust and dangerous measure.

Reviews and Notices of Books.

BRAIN-WORK AND OVERWORK. By H. C. WOOD, M.D., Clinical Professor of Nervous Diseases in the University of Pennsylvania; Member of the National Academy of Sciences, etc., etc. American Health Primer No. 10. Philadelphia: Presley Blakiston. 1880. 12mo, pp. 126.

THIS little book is quite a readable and instructive one on the subject indicated by its title. It abounds in practical suggestions addressed to the general reader. To the physician it presents no novelty. We are pleased to observe the entire absence of the preaching tendency, so frequently noted in works of this character. The author judiciously abstains from drawing an exaggerated picture of remote possibilities of hygienic neglect. He simply indicates probable results of unnatural modes of life. The reader is warned not to be heedless of the premonitory symptoms of nervous breakdown. The great danger of neglecting these seemingly trivial, early signs, is clearly exposed, and aptly illustrated. We would recommend the careful reading of this little volume to brain-workers in every department of human enterprise. The ambitious student, the straining business man, and the hard-worked teacher, will each in turn derive both pleasure and profit from a perusal of its pages.

NASO-PHARYNGEAL POLYPI. By R. P. LINCOLN, M.D., of New York city. St. Louis. 1879. 18mo.

THIS is a reprint of some interesting cases illustrating the above subject.

ANNUAL REPORT OF THE SUPERVISING SURGEON GENERAL OF THE MARINE HOSPITAL SERVICE OF THE UNITED STATES, FOR THE FISCAL YEARS 1878, 1879.

The principal facts in this report have already received notice. We find several papers of interest, contributed by surgeons of the service. Among the latter are "A Sanitary and Consolidated Sick Report of Chelsea Hospital," covering twenty years, by Surgeon-General Hamilton; also, "Notes from the Cruise of the Revenue Steamer 'Rush' in Alaskan Waters in 1879," by Assistant Surgeon Robert White. These notes show careful observation and industrious study of the sanitary condition and prevalent diseases of the Alaskans. Much that is new and interesting upon the above points is furnished.

MALARIA AND ITS EFFECTS. By J. W. YOUNGE, M.D. Fort Wayne, Ind. 1880.

In an essay of twenty two pages, Dr. Younge discusses the pathology and treatment of malarial poisoning. He argues against the germ theory, and declares malaria as an element derived from marsh-infection, existing under a gaseous form, and exclusively of telluric origin. The different types of intermittent, remittent, and yellow fever depend upon an absorption of this same malarial poison. Dr. Y. is also inclined to ascribe the plague to the same cause. Apart from the theories, the pamphlet contains some interesting facts.

EIGHTH ANNUAL REPORT OF THE NEW YORK FREE DISPENSARY FOR SICK CHILDREN, FOR THE YEAR 1879.

This report shows that 2,936 infants and children have been treated gratuitously during the past year, at a cost of only $1,447.89, the entire expense of the institution.

A PROTEST AGAINST MEDDLESOME MIDWIFERY. By H. GIBBONS, SR., M.D.

This pamphlet, originally read before the San Francisco County Medical Society, embodies a very vigorous protest against the indiscriminate use of the forceps. Dr. G. thinks that, if the use of the forceps was suspended for a year, the list of puerperal casualties would not be increased.

PACQUELIN'S THERMO-CAUTERY, WITH WILSON'S ANTI-THERMIC SHIELD, IN EPITHELIOMA OF THE CERVIX UTERI. By H. P. C. WILSON, M.D. Baltimore, Md.

In this reprint Dr. Wilson describes this anti-thermic shield, which he uses with Pacquelin's thermo-cautery. It consists of a double cylinder, between whose walls water is kept running. It is particularly useful in malignant disease of the uterus and vagina.

A POINT IN HOSPITAL MANAGEMENT. By J. S. PRONT, M.D.

When retiring from the presidency of the Kings County Medical Society, Dr. Pront made an address, of which the present pamphlet is a part. The point advocated is that private patients at hospitals should be allowed to select their own physicians, whether on the visiting staff or not. In this case they should pay him the regular fee.

THE RELATIONS OF CARDIAC HYPERTROPHY TO RENAL DISEASE. By ROBERT SAUNBY, M.D. Birmingham: Hall & English. 1880.

This question is reviewed very exhaustively by Dr. Saunby in the above reprint. He concludes, (1) that in Bright's disease an augmentation of the cardiac hypertrophy is compensatory to the renal defect; digitalis is therefore indicated, and the skin and bowels should be kept active; (2) that the high tension pulse indicates a high degree of toxæmia and relative failure of the kidneys.

SANITARY ORGANIZATION OF NATIONS. By HENRY I. BOWDITCH, M.D.

This is one of Dr. Bowditch's best contributions to sanitary literature. Most of the points made have already been referred to in this journal.

POSTURE IN THE TREATMENT OF INTESTINAL COLIC AND ILEUS. By FRANK H. HAMILTON, M.D.

Dr. HAMILTON considers intestinal colic to be often due to a distention of the intestines with gas, this distention twisting and displacing the gut. He has found that elevating the hips of the patient will, in some cases, bring immediate and complete relief.

Reports of Societies.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, Dec. 20, 1879.

DR. H. B. SANDS, PRESIDENT, IN THE CHAIR.

HYDRO-NEPHROSIS—OPERATION—RECOVERY.

Dr. ROBT. F. WEIR presented a patient who had been the subject of hydro-nephrosis. A young man, æt. 21 years, in July, 1878, was seized with cramps in his bowels. There was no definite history of renal colic, no discharge of bloody urine, retraction of the testicle, etc.; but soon after he noticed a slight swelling in the left iliac region, and could feel a small lump. He was admitted to the hospital November 1, 1878, when the tumor was found extending well up the side. It was aspirated and *two ounces* of limpid fluid were drawn off, which had a specific gravity of 1012. It was examined microscopically: no hooks of the echinococcus were found, nor was urea found by chemical examination. A few weeks subsequently a second aspiration was made, *twelve ounces* of limpid fluid were obtained, but it contained no urea. On December 20, 1878, the tumor having increased to a considerable size, an incision was made in the loin as for lumbo-colotomy. A tumor was soon reached, which, from its peculiar color and appearance, was recognized as kidney, and, on being punctured to a depth of about one-fourth of an inch, a cavity was opened that discharged a semi-translucent fluid freely. A drainage-tube was inserted, and its outer extremity made to communicate with an india-rubber bag filled with carbolized sponges covered with carbolized jute.

The day following the operation he passed a flexible metallic probe, thinking that he possibly might find a calculus in the ureter. It was introduced to the distance of about nine inches, and, deducting the distance to the kidney, entered the ureter to the depth of six and a half inches, but no foreign substance was encountered, although the probe would not go any farther. A French conical bougie was then introduced, and went two inches farther, when it was grasped, as though it had entered a stricture. The patient remained in the hospital, without notable change, until March 1, 1879, when he went out, but returned in April, when the drainage-tube was removed and the wound permitted to close.

It was noticed, as soon as the opening in the loin

losed, that he passed urine in larger quantities hrough the natural passage. Dr. Weir opened the ulging cicatrix, and two or three ounces of clear fluid, with a small quantity of pus, were discharged. After that three abscesses formed in the loin, and the discharge from each one was decidedly more purulent than that from the one by which it was preceded. About the middle of July the wound closed entirely, and since that date the patient had had no trouble whatever referable to the urinary apparatus, and no trace of the tumor could be found by abdominal exploration. Immediately after the operation, which removed the tension, the fluid that was discharged—eight to twelve ounces daily—contained decided evidence of urea, and its specific gravity was considerably higher than that of the fluid drawn by aspiration. There had been no discharge from the loin since June last. Had he recognized a calculus in the ureter he should have proposed two plans of treatment: 1. If it was found in the upper portion of the ureter, to crowd it up, and cut down and remove it; or, 2, if found in the lower portion of the ureter, to pass the hand into the bowel and squeeze it along the ureter into the bladder.

The operation and the dressings were made under the antiseptic spray; and, at first, the contents of the rubber-bag were changed two or three times a day. Antiseptic precautions were observed during nearly his entire stay in the hospital. At no time was there any marked rise in temperature. No hemorrhage occurred when the kidney was opened, and he further remarked that he had cut into the substance of the kidney twice, and no hemorrhage whatever had followed. With regard to hemorrhage, however, he thought the amount depended upon where and how extensive an incision was made.

Dr. Lange referred to his case of pyo-nephrosis, in which the patient was wearing the rubber tube, and the discharge was not more than two tablespoonfuls daily. Her general condition was very good. The opposite kidney was very much increased in size. In his case there was a very alarming hemorrhage when the tissue of the kidney was cut. In a future case, if kidney tissue remained, he should use the galvano-cautery knife in making the opening into the sac. The incision which he made was several inches long, and the kidney tissue was about half an inch thick. The application of ice-water and liquor ferri subsulphatis failed to control the hemorrhage, and it was finally arrested by pressure.

Dr. Weir referred to another case of hydro-nephrosis occuring in a middle-aged woman, who fifteen years ago was attacked by pain in the right hypogastric region, followed by the development of a tumor which gradually increased in size until quite a large swelling could be recognized, and then suddenly disappeared. The physician who brought the patient to Dr. Weir told him that, the night before, the tumor was larger than it had been at any time, but during the night it disappeared and the patient passed a large quantity of water before morning. On questioning the patient, it was found that she had noticed the recumbent posture favored a free discharge of urine. Dr. Weir suggested that a calculus was lodged somewhere in the course of the ureter, and gave rise to partial obstruction.

THE TREATMENT OF COLD ABSCESS.

Dr. Lange remarked that every one of quite a number of cases of cold abscess which he had seen had terminated fatally after operation, notwithstanding the adoption of full antiseptic measures. In these there existed either extensive caries, which could not be reached by the antiseptic fluid, or there was some obstacle that prevented it from reaching localities far removed from the external opening. In all the cases the patients died from exhaustion due to excessive suppuration. In the treatment of cold abscess he thought the surgeon should take into consideration the stage of the carious process, and whether or not it is possible to remove all the diseased portion of bone, as, perhaps, might be done upon the extremities. Many abscesses depending on disease of the vertebræ should not be interfered with by operation, because we have means at our disposal to cause their absorption more frequently than formerly. The application of ice and the use of other local antiphlogistics and general treatment were safer than opening the abscesses, and in many cases the disease is removed and the patient recovers without being subjected to the danger that quite commonly follows the use of the knife, in spite of the antiseptic precaution. The process is usually a tuberculous one, and, besides, there exists the danger of an irruption of general tuberculosis from absorption. He then referred to five cases of excision of the hip-joint, all the operations being performed at the University of Kiel in the same year, and all the patients dying, in from seven weeks to three or four months, of general tuberculosis, which developed after the operation, and, he thought, depending upon it, because it was not possible to remove all the diseased portion of bone.

On the other hand, he had seen quite a large number of cases of cold abscess which were relieved entirely by the continuous application of ice and the use of general treatment. His plan of management was the following, having special reference to the treatment of abscess in connection with Pott's disease: First and foremost was the constitutional treatment, which should consist of fresh air day and night, food taken at regular intervals, and no dainties; small doses of iron, with carbonate and phosphate of lime; cod-liver oil, pure or in combination with phosphates; and careful nursing. For local treatment, the plaster-of-Paris jacket, removable for summer wear, and the local application of ice, ice-bags on both sides of the vertebral column, continued steadily, perhaps for two weeks, four weeks, or even six months. In some cases in which the symptoms were acute, the child was laid upon the face, and kept in that position for a few weeks with ice applied, when the plaster-jacket could be applied, and the patient allowed to go around. Of course there is no danger in opening a cold abscess after the disease upon which it depends has ceased; but to open an abscess over an active tuberculous osteitic process affecting the vertebral column is not attended by much less danger than before the introduction of the modern antiseptic precautions. In a large number of cases, to prevent decomposition is exceedingly difficult, and the plan of treatment by opening the abscess under the antiseptic spray he thought was not sufficiently safe to make it justifiable, at least, in every case.

The President asked Dr. Lange how he would discriminate between cases in which the process of disorganization in the vertebral column is going on and those in which the process has ceased, in order to determine which cases are suitable and which are not suitable for the operation.

Dr. Lange replied that, in most cases, the indication would be given by the general condition of the patient. For example, if the fever had subsided and

there were no local signs of inflammation the question of operation might be considered. A patient who has been sick for a year or more with caries of the spine is usually debilitated by loss of tissue, spinous processes being prominent, but there may be no fever or pain, and perhaps the general condition is not precisely. In such a case he would be inclined to assume that the osseous process had ceased, that the abscess is merely the remaining accumulation of discharge, and that to open it would not be dangerous, as probably the opening would soon heal.

Dr. Weir referred to two cases which had been under his observation. All the cases did well, and, in that respect, were an improvement upon results obtained by the old method of treatment. Four cases were treated by opening the abscess under the antiseptic spray, and then using the antiseptic dressings, and one was treated by Mr. Callender's method, or hyperidrotion. In all the cases there was a free discharge lasting for some time. In none was he able to determine whether or not the disease upon which abscess depended was progressing.

Dr. L. A. Stimson referred to two cases of cold abscess which occurred in subcutaneous cellular tissue, independent of bone disease. The abscesses had ceased to be tender; evidence of active process had disappeared. Both were opened under antiseptic spray, both were dressed antiseptically, and both continued to discharge until he became tired of renewing the dressings, and he therefore discontinued their use and allowed the discharge to cease as rapidly as possible.

It seemed to him that, if what Mr. Lister claims is true in its fullest extent, when he says that he will open cold abscesses and have the formation of pus cease from that moment, it should be equally true for the aspirator, for the aspirator is free from possible unfavorable influences to which antiseptic surgery is liable.

The President thought it important to recognize the truth of the statement made by Dr. Lange, to the effect that it is not every cold abscess which requires to be opened in order to effect a cure. A remarkable illustration of that fact was offered in the person of Dr. Hubbell, who distinguished himself by making provisions in his will that his body should be dissected. Several years before his death he came to Dr. Sands complaining of a swelling in the left loin, and there was no difficulty in detecting a large fluctuating tumor over the region of the kidney, and extending down to the crest of the ilium. Dr. S. was uncertain whether the fluctuating swelling had any connection with the urinary passages. Tapping was mentioned, but Dr. H., being somewhat advanced in years, and knowing the possible mischief that might accrue, avoided the operation, and passed from under observation for nearly a year, and at the end of that period he reported himself, saying that he was well. While under observation the abscess extended, and evidence was obtained of matter burrowing down upon the buttock, three or four inches below the crest of the ilium; and it also extended upward to the free border of the ribs, but at the time he reported himself it had entirely disappeared. He subsequently died of Bright's disease. Dr. Sands examined the body very carefully, dissected the left lumbar region, but found no abscess. A great deal of connective tissue was found, in which it was difficult to recognize the remains of the kidney. The ureter was imbedded in this mass, which infiltrated the loin, and it was impervious down to its junction with the bladder.

The President also referred to a case of double psoas abscess, seen in Bellevue Hospital, in which absorption did not occur. A young man, act. 17 years, had caries of the lumbar vertebræ, beginning when ten or twelve years old, and there was well marked projection of the spinous processes with swelling in the left groin. Soon after a similar swelling made its appearance in the right groin. In both groins the swelling occupied the position usually occupied by the iliac abscess. The left abscess broke, and about ten days after the right one ruptured and the discharge ceased from the abscesses very slowly indeed. The sinuses remained open for a couple of months. The result was complete recovery.

Dr. Lange was inclined to believe that, in many cases in which favorable reports had been given regarding operative treatment, the disease upon which the cold abscess depended had ceased, and it was possible that the abscess, if let alone, would have healed, perhaps not so quickly, or would have healed under any method of treatment.

The President referred to a case which came under his observation while house surgeon in Bellevue Hospital. The patient had, in early life, suffered from lumbar abscess. He died from other causes, and at the autopsy a caseous deposit was found occupying the precise situation of the psoas muscle. The muscle had entirely disappeared, and the sheath was filled with cheesy matter, the residuum of the old lumbar abscess.

Necrosis of the Humerus.

Dr. Lange presented several pieces of bone obtained from a case of necrosis of the humerus extending into the elbow joint. The patient was nineteen years old; necrotomy was performed about one year ago; the disease was arrested, and only a slight amount of stiffness of the joint remained. The joint was opened during the operation. He raised the question, How shall a joint, which in consequence of osteo-myelitis has become stiff, be treated? Shall excision precede necrotomy, or shall it be a subsequent operation? In the case reported, the patient declined excision, yet he had the use of the arm restored. Dr. Lange referred to one case in which excision of the elbow and the shoulder-joints was performed at the same time with the necrotomy of the entire humerus, by Prof. Esmarch, and the operation was followed by a very good result. He had also heard of a similar case in which the result was very good. He thought excision of the elbow-joint is not so dangerous as that of some other joints, because the tissues are not so apt to undergo infiltration, and the reaction is usually a slight one.

Dr. Stimson referred to a case reported by Langenbeck, of gunshot injury of the shoulder joint, for which four inches of the upper part of the humerus was removed; necrosis of the remaining portion of bone followed, and a few months later a second operation was performed, and the remaining portion of the humerus, with the lower articular surface, was removed. The operations were followed by reproduction of the bone with two articular surfaces.

The Society then proceeded to the transaction of miscellaneous business.

Progress of Cremation.—During the year 1879 fifteen cremations were performed at Gotha, in Germany. The furnace was erected in December, 1878. The average length of time taken for incineration was two hours. The Cremation Society of Milan has burned forty-eight bodies in the last three years.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, February 23, 1880.

DR. A. E. M. PURDY, PRESIDENT, IN THE CHAIR.

THE Society was called to order at 8 P.M., and the minutes of the last stated meeting read by the Secretary, Dr. F. A. Castle.

OPHTHALMIC NOTES.

DR. C. R. AGNEW read a practical paper having the above title, and directed attention, first, to *the use of electricity in the treatment of cataract.* The conclusion, based upon established and long-recognized principles relative to the nature of the affection was, that it was not impossible that electricity might serve as a tonic, and so relieve some of the symptoms that the credulous might be allured into the belief that they had been cured; but we should be very careful about accepting even such a result. Any form of medical or hygienic treatment which was adapted to special conditions might afford a certain degree of relief. To tell a patient, however, that he had cataract, and then apply electricity, and, upon the removal of one or more symptoms, tell him that he was cured, was, to say the least, unwise, and equivalent to admitting that ours never was a science, but a learned art, and at most an uncertain one; and that the patient's chances of relief were as good under the influence of proprietary medicines as under the management of a medical man who had wisdom and skill. True cataract had not been cured by electricity as yet. Spontaneous dislocation or liquefactive degeneration might occur while remedial measures were being used, and electricity might be among them; but, otherwise, cataract would require for its cure a surgical operation.

SCANT FEEDING IN OPHTHALMIC CASES.

Under this heading Dr. Agnew spoke of forced alimentation, to which public attention had lately been directed by Dr. A. Hutchins, of Brooklyn, in a paper read before the Medical Society of the State of New York. He had followed the plan for many years of giving his patients, notably women, who physically were in an impoverished condition and suffering from asthenopic affections usually, specific directions regarding the articles of food, and the quantity to be taken three, four, or more times daily, as each case might seem to require. Aural diseases of a catarrhal character, with or without middle ear complications, were greatly benefited by systematic and forced feeding, if need be. Too many practitioners contented themselves with giving the diffuse directions, "You must eat more," "You must take better food," without laying down, in black and white, what should be taken, and how often. The following he had for many years both taught and practised:

1. Ascertain the amount of real labor which the duties of the patient impose.

2. Estimate the probable force which the patient possesses; and

3. Estimate with reference to the quality and quantity of food used.

Having done these things, the method pursued was to prescribe in writing, with great emphasis and precision, the daily course of regimen, and provide for every meal, ordering a definite quantity of food to be taken at least three times a day, sometimes every two hours, and, if necessary, the patient might be permitted to consume one or two hours in getting the food down; but take it they must, or else seek other medical advice. In some cases a daily bath, and early going to bed, were of great importance as adjuvants. The foundation of *asthenopia* was very often laid at an early period of life, for both male and female. There should exist a proper relation between the physical form of a man and the labor which he had to perform, and that person was a more or less morbid specimen, the spurious fruit of so-called education, who was deformed or dwarfed in any of the organs essential to the proper performance of the normal functions of the human body.

It was known that *near-sightedness* was rapidly increasing, and it was largely due to a misconception of the principles which should underlie the management of the bodies of the children and youth of our country. Much of the present cramming in schools was productive of evil, and unwise. A graphic picture was then presented, which consisted merely in citing an illustrative case, in which an attempt was being made in a popular school to educate a young girl by giving her regular lessons in fifteen branches.

The great problem should be to teach a few fundamental subjects suited to the stages of the scholar's life, so that each succeeding stratum, so to speak, should be solid instead of porous, and that should be done with more reference to the physical and mental idiosyncrasies of children, and not in so cast-iron and inflexible manner as at the present time. The physical capacity of the scholar should be examined and verified, and the degree of work be made proportionate.

ABUSE OF STRONG AGENTS IN THE TREATMENT OF SIMPLE CATARRHAL AFFECTIONS OF THE EYE.

It would be much better, said the speaker, if the general practitioner should never apply either the solid stick or strong solutions of nitrate of silver or sulphate of copper, etc., to the eye.

For diffuse and chronic catarrhal inflammation of the conjunctiva, he recommended the following, to be used in the form of spray:

℞. Tannic acid	grs. v.
Glycerine	ʒ ij.
Biborate of soda	ɔ ij.
Camphor water	ʒ iv.

M. and filter.

In all chronic affections of the eye the Turkish bath was of great service, as, for example, in extended inflammation of the cornea, iritis, etc. Pilocarpin, used hypodermically in sufficient doses to produce profuse salivation and sweating, was also specially serviceable in many of the chronic cases.

THE OPHTHALMOSCOPE IN CEREBRAL DISEASE.

Dr. Agnew expressed a lack of confidence in the value of the ophthalmoscope in recognizing the presence or absence of cerebral congestion. In the first place a reliable ophthalmoscopic examination was most difficult to make. In the greater number of "jaded heads" the ophthalmoscope, so far, had given only negative results. That we might, by looking into the eye with an ophthalmoscope, tell whether the brain was congested or not, he did not believe, as a rule, was true. Evidence of congestion was rarely present in cases of "jaded heads."

The paper being before the Society,

DR. H. D. NOYES referred to a remark made by a gentleman in days when little or nothing was known about refraction of the eye, as taught in modern times, namely: "When people come to me complaining

of symptoms asthenopic in character, I commonly go through with such a formula as this. I ask something about the habits of life—with respect to work and food, ordinary surroundings, medical history, etc., and make such examination as is necessary to eliminate actual diseases of the eye, and then tell them, 'You are suffering from what is known as asthenopia. What I wish you to do is to take the best dinner you can get, drink half a bottle of wine, and do the same thing every day for a few days, and if at the end of that time you find your eyes are better, I think you can get well; but if you are not able to use the eyes better after using good food and some stimulants, I cannot help you.'"

Dr Noyes thought that in the formula recited laid the pith of Dr. Agnew's remarks upon that class of cases, and on the subject of forced alimentation he had suitably laid great stress. With reference to *cataract* his experience corroborated that of the author of the paper. Cases were not at all uncommon in which there was no noticeable progress in the cataract for many years, and in such cases it was very easy for the person to become deceived by the statement that he had been cured. With regard to *school life*, it was to be noted that knowledge was one thing and wisdom was another. In the modern schools an effort was made to force the knowledge into the pupils, perhaps to the detriment of wisdom, certainly to the detriment of their physique. Much that had been said by the reader appealed to the experience of general practitioners, and Dr. Noyes commended all the suggestions as exceedingly timely and exceedingly wise.

Dr. Charles S. Bull endorsed the statements in the paper most heartily, but especially the remarks made relative to the limited power of the ophthalmoscope. He believed that it had only a very limited power as a cerebroscope. The diagnosis of the inflammatory conditions of the optic nerve, and, inferentially, corresponding conditions of the brain, had been, for the most part, made by persons who were not sufficiently acquainted with the instrument to diagnosticate any of the more delicate affections of the eye. He thought it important that the general practitioner should know how limited the ophthalmoscope was as a cerebroscope.

Dr. O. D. Pomeroy thought it would not be personal, perhaps, to say that he was not acquainted with a single neurologist in the city of New York whom he knew thoroughly understood diagnosticating refractions by means of the ophthalmoscope. The only method by which the eye could be examined exhaustively was the upright, and that could not be practised skilfully without understanding how to diagnosticate refractions. No man could make a thorough ophthalmoscopic examination without such ability, and he knew of no one who possessed the requirement except ophthalmic surgeons. Ordinarily, neurologists were unable to state whether or not there was any disease in the eye.

With regard to nutrition, he made it a rule in many cases not to undertake the treatment of otitis, unless the patient would agree to cease work and feed well.

With regard to cataract, he thought it true that perfect crystalline lenses were about as rare as perfectly moral men.

With reference to the use of the sulphate of copper, he differed somewhat from Dr. Agnew, and used it a great deal. Of course, if used at all excessively, it would cause undesirable irritation. He thought he could touch the inflamed conjunctiva so lightly with a crystal of sulphate of copper as to produce nothing more than slight lachrymation, and a trifle of sneezing, which would be produced by the milder applications.

Dr. I. A. Corlis referred to the mismanagement of the pupils in boarding-schools. The same was true of young children. Some parents seemed to dread that their children would be overfed, and so produce an unseemly exterior, and by the time they had reached the age of twelve or fourteen it was found very difficult to make them take a sufficient quantity of food to meet the physiological requirements for growth and repair.

Dr. Mitchell referred to the beneficial influence exerted by a Turkish bath upon a case of iritis. Prior to the bath it resisted treatment, but as soon as the bath was taken the patient improved rapidly; and then, after a mercurial bath, the synechia readily improved, and the patient made an excellent recovery.

Dr. Agnew remarked that he did not wish to interdict the use of nitrate of silver and the sulphate of copper in certain ways, in chronic diseases of the conjunctiva, and only referred to the facility with which they were used in slight catarrhal affections which were limited, and which would get well of themselves, and not infrequently, so used, produced cicatrices that were a permanent source of irritation.

THE AUDIPHONE.

Dr. Agnew further remarked that he had yet to see a person who had been benefited by the audiphone to the extent that had been claimed for it. He exhibited an extemporaneous audiphone made by one of his patients, who declared that it was more serviceable to her than any of those found for sale. It consisted of an ordinary Japanese fan, with a hollow reed handle, and delicate, radiating fibres covered with vegetable tissue, and over that surface had been placed a coating of shoe-blacking and a coat of shellac. The edge was bound by a little strip of brass, and at the central part a strip of silver was used for binding, so that when placed in the mouth the disagreeable taste of the brass would be avoided. The fan was bent so that a broad convex surface caught the impression which was transmitted through the teeth, as it was held with the concave surface toward the body and the edge against the teeth.

Under the head of miscellaneous business the names of all members delinquent in the payment of dues for more than one year were read, and it was voted to publish the list in the minutes.

WHO FOUNDED THE NATIONAL MEDICAL LIBRARY?

The Secretary read the following:—

WASHINGTON, February 3, 1880.

To the Secretary of the Medical Society of the County of New York:

DEAR DOCTOR—As my attention has several times been called to the communication by Dr. Wm. A. Hammond relative to the library of this office, read at the annual meeting of the Society, October 27, 1879, and more especially to the report of this communication given on page 472 of the New York MEDICAL RECORD for November 15, 1879, with requests for explanations, I deem it proper to make a statement on the matter to the Society.

From the report in the RECORD, some have inferred that I claim to have been the founder of the National Medical Library, although the letter of Dr. Hammond, as printed on page 40 of the minutes of that

meeting, makes it very plain that I have made no such claim.

The facts of the case are simply as follows:

For many years there was a small collection of medical books and journals in the Surgeon-General's office at Washington, which collection was commenced by Surgeon-General Lovell prior to 1836.

At the commencement of the war this collection amounted to between three and four hundred volumes.

Dr. Hammond entered on his duties as Surgeon-General April 28, 1862, and left Washington August 30, 1863, after which date he was not on duty in this office. During this interval three hundred and fifty-nine volumes were purchased for the use of the office, the principal works being a set of the "Annales d'Hygiène" and a set of the "Boston Medical and Surgical Journal." During the years 1864 and 1865 about 1,000 volumes were added to the library, mainly works selected by Drs. Woodward and Otis.

When the library came under my charge, in the fall of 1865, it contained, as shown by a catalogue made at the time, about 1,800 volumes. At this date it contains about 50,000 volumes and 60,000 pamphlets.

Very respectfully and truly yours,

JOHN S. BILLINGS,
Surgeon U. S. Army.

DR. P. BRYNBERG PORTER introduced a resolution asking Congress not to repeal the present law making quinine free of duty. On motion it was referred to the Comitia Minora.

The Secretary tendered his resignation, which the Society, by vote, refused to accept. The Society then adjourned.

WEST CHICAGO MEDICAL SOCIETY.

February 9, 1880.

THE PRESIDENT, DR. BRIDGE, IN THE CHAIR.

TRAUMATIC TETANUS, WITH RECOVERY.

DR. E. W. LEE reported a case of *traumatic tetanus*, with recovery.

Seven weeks before the case came under his observation the man had received a crushing injury of the outer side of the lower third of the leg. It had been dressed by a physician, but a fracture of the fibula was not discovered. On visiting the man the first time Dr. L. noticed the *risus sardonicus*, that grin which marks a case of tetanus. The patient complained of a tightness about the chest, as though a belt was drawn tightly around the body. What was curious was the fact that the patient declared that these symptoms had existed from a few days after the injury. This gave the case the appearance of chronic tetanus. The injured part presented an unhealthy but small ulcer, from the bottom of which a sinus led to denuded bone.

Bromide of potassium and hydrate of chloral were given—the latter in 20 to 30 grain doses—with instructions to repeat often enough to keep the man in a stupor.

The next day he was worse, and a thorough examination of the wound was made—the patient being anæsthetized. A portion of the fibula, over an inch in extent, was found necrosed; this was removed. He grew worse, and in one week all the symptoms of acute tetanus were developed. He had convulsions, and the abdominal muscles were in a state of tonic contraction. The bromide and chloral had been continued. Now calabar bean extract was given, one-eighth to one-quarter grain every two hours. It produced no effect. Squibb's extract was then procured, and one-eighth grain was given at a dose hypodermically. At first four doses each hour was given; soon the convulsions abated. The doses were given less often, and in twelve hours an injection every two hours was sufficient to control the convulsions. The effect was repeatedly observed that, following a dose of the medicine, the convulsions grew less, while invariably a prolonged omission of it was followed by an increase of the spasms. By the seventh day one or two injections daily were all that was required. A good recovery was made; seven weeks had elapsed since a convulsion had occurred.

DR. S. J. HOLMES related a case of traumatic tetanus that recovered under the influence of calabar bean, while he was an interne in Charity Hospital, New York. The spasms had appeared the eleventh day after the injury (the fracture of a finger). One-half to one grain of Squibb's extract of calabar bean was given every three hours throughout the course of the disease.

TREPHINING IN DEPRESSION OF SKULL AND COMA, WITH IMMEDIATE ALLEVIATION OF THIS SYMPTOM.

DR. LEE related a case of fracture of the skull—a child who had fallen ten or twelve feet and struck upon its head. The skull was fractured transversely across the crown, and the depression was very marked. It was stated that the child had walked several yards after the fall, but when he was called the patient was in a condition of perfect unconsciousness. He trephined and lifted the depressed bone with a pair of forceps, when consciousness instantly returned. The child did well for several days, when fever set in and it died.

POISONING BY CHLORATE OF POTASSIUM.

DR. ADELIA BARLOW related three cases of what she believed to be the poisonous effects of chlorate of potassium given in what had been supposed to be poisonous doses. The first case was in a child nineteen months old, who had scarlet fever. The case had been treated with iron, quinine, and chlorate of potassium. The child was convalescing, the quinine and iron mixture had been mostly discontinued, that of the chlorate was continued, the patient swallowing a drachm of the salt every twenty-four hours. Suddenly, one evening, the patient passed into collapse, the trunk of the body became feverish, but the extremities were cold and the breathing stertorous. There was every evidence of poisoning. The child slowly revived under the influence of large doses of quinine and brandy. She could attribute the symptoms to nothing but the chlorate.

The second case was in a child eight months old. Thirty grains daily of the chlorate was given. After a few doses had been given, symptoms similar to those of the first case came on.

The third case was in an infant, three weeks old, with thrush. It took only one dose of the medicine. The mother saw that poisonous symptoms had been produced, and refrained from giving more. The symptoms were like those of the first case.

She was sure that in neither case was there any suppression of urine.

DR. HARCOURT and DR. LYMAN discussed this subject, and both expressed the view that the drug in question should be given with more caution than had generally been thought to be necessary.

Correspondence.

THE SOCIAL POSITION OF THE DOCTOR.

To the Editor of The Medical Record.

Dear Sir:—In your issue of February 11th occurs the following sentence: "The social position of the doctor in this country is not, on the whole, a very high one; because the individual doctor has not the means, and often, it must be confessed, not the education or taste, to make it such." These remarks, it seems, were elicited by some strictures made by Dr. J. Milner Fothergill, of London, in a letter in a recent number of the *Philadelphia Medical Times*, respecting the social position of medical men and their wives in Great Britain, the latter of whom he declares to be mere pariahs or social outcasts without any position whatever. With this statement of Dr. Fothergill I have no concern, although I take leave to express my conviction that it is entirely erroneous.

To the assertion of the Record I am obliged to take exception, for I am sure it is not true. I have lived a good while in the world, and having seen a great deal of society, I am safe in asserting that there is no profession, vocation, or pursuit which, on this side of the Atlantic, enjoys a higher social status than the medical, the clerical not excepted. The refined and educated American physician is a prince among men, and his wife is ever his equal in the social circle. Indeed, she is often a leader in, and a queen of, society. Who has not heard of the late Mrs. Octavia Walton Le Vert, the wife of the distinguished Dr. Henry S. Le Vert, of Mobile, Alabama? This lady, so accomplished as a linguist, a writer, and a conversationalist, was everywhere honored and caressed by the good and the great at home and abroad. No American woman ever received more homage or consideration at foreign courts than she did. For many years she was a leader of fashion in her own city, rendering her house one of the most attractive in the country, and adding greatly to the reputation of her celebrated husband. Mrs. Le Vert's case is not a singular one. Many similar instances might be cited of the wives of medical men, who, by their charming manners, high mental culture, great intelligence, and high refinement, have attained to the highest social rank. In my own city the educated physician is, and always has been, the peer of the best man in the community, whatever may be his calling. There is never any large dinner-party, an evening gathering, or a club-meeting, at which there is not always a full representation of medical men, who never fail to hold their own by their good breeding, their general intelligence, or the elegance of their manners. The Wistar parties, so called in honor of Dr. Caspar Wistar, the celebrated Professor of Anatomy in the University of Pennsylvania, which, for nearly half a century, were the acknowledged centres of the refinement and intellectual culture of Philadelphia, were largely composed of medical men, among others, of Chapman, James, Dewees, Hays, Bache, René La Roche, Robley Dunglison, and George B. Wood, men who, in a social point of view, were the peers of the Binneys, the Sergeants, the Ingersolls, the Whartons, the Cadwaladers, and other distinguished citizens. The wives of these men were all on an equal footing. Where their husbands went they went; they were not pariahs or social outcasts. On the contrary, they were refined and cultured women, the peers of any similar number of women in the country. The Morgans, Shippens, Rushes, Wistars, Bartons, and Dorseys of former days, occupied along with their wives an equally commanding social status, and what is true of those people is equally true of the present generation of medical men, and of their wives, in this city.

During my residence at Cincinnati and at Louisville, I never failed in attending an evening party, a dinner, or a social entertainment of any kind to meet with some of my professional friends and their wives, sons, or daughters; and I speak advisedly when I declare, although it may be at the expense of repeating myself, that there is not a city or town of any considerable size in the Union, in which the same state of things does not obtain. If you look at the medical profession in your own city, you will find a further illustration of the truth of my statements. In 1828, I was at a Thursday evening reception given by the late Professor David Hosack, one of the great medical luminaries of his day, to the New York Philosophical Society, which was graced by a large number of distinguished jurists, divines, artists, and literary gentlemen, including, as I well remember, such men as Francis, Macneven, Mott, Kearney, Rodgers, and the great and good but eccentric Samuel Latham Mitchill, and their wives. It was one of the most brilliant assemblies of the kind I have ever witnessed. It is not necessary to ask what was the social status of such men as Bailey, Bard, Jones, Miller, Wright Post, and others, physicians whose names and fame are indissolubly associated with the glory of New York. It is folly to suppose that these men were deprived of the entrée of the best society of your great city.

The refined and cultivated society of Boston has always had a large share of the medical element. Its doors have always been widely open to the Warrens, the Haywards, the Channings, the Bigelows, the Jacksons, the Shattucks, the Bowditches, the Storers, the Reynoldses, and others, as they still are to their descendants. In no section of the United States did society for a full century enjoy so high a status as that of Charleston, South Carolina. It was, beyond question, at one time, the most brilliant and aristocratic society in this country. Nowhere has there been at any time on this continent a higher type of civilization, or a greater amount of elegant and refined breeding, than in this once great and famous city; famous for its pretty and accomplished women, and its noble, chivalric, and intelligent men. Its social entertainments were always of the most recherché and costly character. More old madeira and sherry, burgundy, and champagne were consumed, and a greater number of terrapins annually slaughtered at these réunions than in any other city of its size in America; and who that is familiar with the inner life of Charleston, as it existed only a short time ago, does not know that its society was largely indebted for the éclat which it so long enjoyed, to its medical men and their wives? The elegant and refined S. Henry Dickson was a host in himself—a perfect type of the true gentleman who would, in any land, have graced the society of princes. Who is not familiar with the high social position of the Ramsays, the Porchers, the Ravenels, the Holbrooks, the Geddingses, the Prioleaus, Frosts, and other distinguished men whose names adorn the medical history of the United States?

What is true of our larger cities in this respect is true, emphatically true, of every town, village, and hamlet of the Union. Go where we may, the refined and cultured physician is a man of mark, not a whit

inferior in his social position to the clergyman, the lawyer, the scientist, or the merchant prince. A great deal is said at the present day of the want of refinement and of the defective education of the medical student, as if he were the veriest boor in Christendom, hardly half civilized, unwashed, unkempt, and dressed in the shabbiest possible garb. We are all agreed that our systems of instruction are sadly out of joint; that they are not what they should be, or what, by and by, they must and will be; but I am quite sure that if you were to drop in some day into my lecture-room, while I am engaged in addressing nearly 600 students, assembled from all parts of the country, including representatives from different foreign lands, you would be surprised at their orderly conduct, their gentlemanly appearance, and their intelligent countenances. Many of these youths are not only well educated, but they have been reared under the best influences, and are destined to make their mark in the profession as well as in the social circle. Our army and naval surgeons are, as everybody knows, everywhere admitted into the very best society, both at home and abroad. Again, not a few of our young physicians marry into our most distinguished families, which would assuredly not be the case if they were not well-bred, cultured, and meritorious men.

It might seem invidious in me, if not in bad taste, to institute a comparison between my own and the other learned professions; but I think you will bear me out in the assertion that if we take one hundred medical men, as we meet with them in our towns and cities, and place them side by side with an equal number of clergymen and lawyers, they will lose nothing by the comparison either in mental culture, high refinement, or social position.

I am not sufficiently familiar with the social status of medical men in Great Britain, but, unless I greatly err, Dr. Fothergill has been inadvertently betrayed into an unfortunate slander upon his professional brethren, which no one will probably regret more than himself, or be more anxious to correct. My two visits abroad brought me into contact with a large number of medical men in England, Ireland, and Scotland, and I can conscientiously declare that I did not meet with a solitary one who was not entitled to be called a "gentleman." There are, of course, different grades of society, and it cannot be expected that every medical man should, even if he aimed at such an absurd performance, be received into the highest circles. There are comparatively few in any profession who are thus honored.

Every man holds his social position in his own hand; if it be not his birthright, he can, if he choose, or is worth anything at all, gradually attain it, despite the misfortunes of circumstances. The requirement for admission into society in Philadelphia is said to be family, or blue blood; in New York wealth or money; and in Boston literature or mental culture. This may be so, but it is so only in a certain degree, and these landmarks are rapidly becoming merged into one another. Character alone should be the test of social distinction in a truly civilized country.

I cannot agree with you when you say that social position is not a thing for which men should struggle. I cannot see how this can interfere with a physician's usefulness. On the contrary, I regard it as one of the highest and most sacred duties of the medical man to cultivate the graces and amenities of social life. It is the absence of this quality that lowers the profession so much in public estimation, and reduces it to the level of the more ordinary pursuits of life, as illustrated in the conduct of the mechanic, the tradesman, and even the common laborer. No, no; let the medical man aspire to be a refined and cultured gentleman, and do all he can to adorn the higher walks of life, for just in proportion as he does this will he be respected by the community, and add to the respect and dignity of his profession.

Very respectfully your obedient servant,

S. D. Gross.

Philadelphia, February 25, 1880.

[We are glad to hear from Prof. Gross on this topic. Except in a few unimportant particulars, to which it is unnecessary now to refer, we entirely agree with him in the position he has taken. But we consider it quite fortunate for the readers of the Record that the points of difference were considered by him of sufficient importance to provoke the writing of his very interesting epistle.—Ed.]

TWO CASES OF INERTIA UTERI.

To the Editor of The Medical Record.

Sir:—It has occurred to me that the history of two cases of inertia uteri, which have come to my knowledge, might be of interest to the readers of the Record. Mrs. D., a native of Ireland, 47 years of age, the mother of ten children, was taken with labor-pains the 11th of last November. Her physician was sent for, although no trouble was anticipated, and she had been confined usually by a nurse, and no physician had been called. Her physician remained with her through the 12th and waited for nature to accomplish her purpose. The pains were short and grew less and less, and finally ceased. Some time during the night of the 12th Dr. F. was sent for, and at his suggestion the forceps were applied at the brim of the pelvis. No effect upon the progress of the delivery was possible with the forceps, and at 8 A.M. of the 13th I was summoned to the case. Thinking that the forceps might yet be efficacious, I reapplied them, but with no better success than before. The woman was very patient, and all this time had no pains of any appreciable amount. Upon consultation, craniotomy seemed best, and the brain was broken up and the head extracted. The shoulders next engaging in the passages, were delivered by getting one arm down and then the other, and the body finally drawn away by force, coming as a cork from a bottle, so completely was the passage filled. The mother was a large-framed, muscular woman, with broad pelvis, but the difficulty was threefold: the entire inertia of the uterus, the extraordinary development of the child, which must have weighed sixteen to eighteen pounds, and the peculiar hardness of the child's flesh, which Dr. F. described as resembling cold tallow. The child had evidently been dead some hours, and perhaps days. The mother made a good, though slow recovery, but was much troubled with incontinence of urine for some weeks. We had noticed a remarkable dilatation of the urethra after the delivery, and I feared that the incontinence might be permanent. However, a few weeks later she told me she was "all right."

The other case was reported at the annual meeting of the Union Medical Association of Washington, Warren and Saratoga Counties, by Dr. Gibbs, of Fort Ann, who saw the case in consultation with Dr. Sarah J. Finch. The patient was a young woman, 24 years of age, one and a half years married, who had experienced one miscarriage. She had had some cardiac difficulty for several years, and after her miscarriage had been treated for it. During the time of

her confinement her pulse was very irregular and fluttering. She was taken at first with slight pains, and these increased somewhat, and, with some intermission, continued for twenty four hours. After that time there were no very effective pains, full doses of ergot merely increasing them for a brief period. Dr Gibbs was called in, the forceps applied at the upper strait, and no amount of force which the doctor thought proper to use was of any effect. Craniotomy was thought expedient. Another physician, of more experience, was sent for, and asked to perform the operation, which he declined to do, saying it was unnecessary. After waiting nearly twenty four hours more, with no return of the pains, Dr Gibbs performed craniotomy and removed the child, much decomposed, and weighing eleven or twelve pounds. There was no contraction of the uterus after delivery, and the placenta was removed by introducing the hand and peeling it from the walls of the uterus, which even then did not contract. Cold applications externally caused some slight contractions, but there was no flooding, no fresh blood appeared, even when the placenta was thus forcibly removed, and no natural lochia. The patient made fair progress toward recovery, began to sit up a part of the day, when, about three weeks after the delivery she seemed to have taken cold, had a severe chill, was troubled about breathing, and within twenty-four hours was dead. No satisfactory explanation of the causes of this condition was suggested at the meeting. Will some of the readers of the RECORD, who have had similar cases, give their ideas on the subject?

JAMES S. COOLEY, M.D.

SANDY HILL, N. Y., Feb. 18, 1880.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 22 to February 28, 1880.

BYRNE, C. C., Major and Surgeon. Granted leave of absence for twenty days. S. O. 2, Dept. of Dakota, February 18, 1880.

LORING, L. Y., Capt. and Asst. Surgeon. When relieved by Asst. Surgeon D. M. Appel, to proceed to Ft. Dodge, Kan., and report for duty at that post. S. O. 39, Dept. of the Missouri, February 20, 1880.

APPEL, D. M., First Lieutenant and Asst. Surgeon. Assigned to duty at Ft. Supply, Ind. T., relieving Asst. Surgeon Loring. S. O. 39, C. S., Dept. of the Mo.

COOPER, GEO. E., Lieut.-Colonel and Assistant Medical Purveyor. To be relieved, temporarily, in the charge of the Medical Purveying Depot in San Francisco, Cal., by Capt. H. Johnson, Medical Storekeeper. S. O. 48, A. G. O., March 3, 1880.

HEGER, A., Major and Surgeon. Having reported in compliance with orders from the A. G. O., is assigned to temporary duty at Department Headquarters. S. O. 42, Department of Texas, February 26, 1880.

MUNN, C. E., Captain and Asst. Surgeon. Granted leave of absence for one month. S. O. 44, Department of the Missouri, February 27, 1880.

BROWN, P. R., Captain and Assistant Surgeon. To report in person to the President of the Medical Examining Board for examination for promotion, and on completion of the examination, to the Commanding General, Department of the East, for assignment to duty. S. O. 47, A. G. O., March 2, 1880.

FISLEY, J. A., Captain and Assistant Surgeon. To report in person to the President of the Medical Examining Board, in session in New York City, for examination for promotion, and, upon completion of the examination, to the Commanding General, Department of the East, for assignment to duty. S. O. 47, C. S., A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 6, 1880.

Week Ending	Typhus Fever	Typhoid Fever	Scarlet Fever	Cerebro-spinal Meningitis	Measles	Diphtheria	Small-pox	Yellow Fever
Feb. 28, 1880...	0	7	49	4	176	44	0	0
March 6, 1880..	0	6	43	3	144	35	0	0

A CORONER'S BILL to prevent unnecessary inquests is before the Ontario legislature. The *Canada Lancet* states that it provides that a coroner, before summoning his jury, shall make affidavit before a justice of the peace that he believes the deceased died through violence or unfair means, and that an inquest is needed. The bill, if it becomes a law, would lessen the number of post-mortems, but would probably increase the duties of the coroner in other ways.

DEATH OF A MEDICAL STUDENT FROM DIPHTHERIA. —Another Paris medical student has fallen a prey to diphtheria. M. Reverdy was one of M. Bouchut's assistants at the Hôpital des Enfants Malades, and, although he had become seriously ill, continued his work until M. Bouchut at last insisted on his going home. It was, however, too late, and he died within a week. He was the seventh medical student who died from diphtheria contracted in the same hospital during the past year.— *British Medical Journal.*

MEASUREMENT OF LIMBS.—A correspondent of the *Cincinnati Lancet and Clinic* writes that Dr. Thos. G. Morton has been measuring the limbs of the boys of Girard College. Among 300 he found asymmetry the rule, the difference varying from a fraction of an inch to an inch.

REPORT OF SEMI-CENTENNIAL ANNIVERSARY OF THE DISTRICT MEDICAL SOCIETY FOR THE COUNTY OF BURLINGTON, N. J., held April 17, 1879. This report embraces an address of welcome by Dr. R. H. Page, and a historical address by Dr. Jos. Parrish. The latter is a carefully prepared document, and contains many interesting sketches of the early members of the District Medical Society. It appears that the Society has taken a prominent part in medical, sanitary, and educational work, and has earned a right to self-congratulation on its having reached a fiftieth birthday.

THE AMERICAN VETERINARY COLLEGE.—The commencement exercises of the American Veterinary College were held February 27th. Prof. D. B. St.

John Roosa delivered the address to the graduating class. The President of the Board of Trustees, Samuel Marsh, Esq., conferred the degree of Doctor of Veterinary Surgery on eight gentlemen. The valedictory was delivered by E. R. Wing, of the graduating class.

The Founding of the New York Hospital.—In a work just published by the Churchills, in London, on "Pay-Hospitals and Paying-Wards throughout the World," by Henry C. Burnett, occurs the following: "In March, 1878, a new hospital, intended almost exclusively for the well-to-do classes, was established by Dr. W. H. Van Buren in New York. The cost of this hospital and the grounds which surround it is estimated at £180,000," etc., etc. It will probably interest Dr. Van Buren as much to know of his magnificent benefaction, as it will the profession in America to learn that the New York Hospital owes its being to their esteemed fellow-countryman.

Iron and Digitalis.—It is often very desirable to give these remedies together. A common way has been to administer the ammonio-citrate of iron and tincture of digitalis. According to Mr. F. Y. Livy, however, in the *British Medical Journal*, a mixture of tincture of muriate of iron, tincture of digitalis, and dilute phosphoric acid, is the best formula. The acid prevents the formation of a tannate, and is useful in case there is any stomachic disorder.

We have tried the above mixture, and find it without precipitate, as described.

The Northampton State Lunatic Hospital and the Curability of Insanity.—The twenty-fourth annual report of the Northampton Insane Asylum, or, as it now calls itself, Lunatic Hospital, has just been received by us. Under the efficient care of Dr. Pliny Earle, the institution seems to be kept in excellent condition. By the work of its patients and by its pay-patients it manages now to be self-supporting.

Dr. Earle has for some time taken the ground that the curability of insanity has been much exaggerated. He discusses this question at length in the present report. In his own asylum, devoted largely to chronic cases, there were admitted during the past year 106 patients. Of these, 23 died, 26 were discharged cured, 28 improved, and 14 unimproved. Several of the 26 cases of cure were liable to a return of the disease; so that the number of actual cures is less than 24 per cent., and much below that usually given by asylums. Dr. Earle is of opinion, however, that a lower percentage would be given elsewhere, if more care were taken in the statistics, and the errors due to reckoning the number of cures on the same person avoided.

We notice that the ratio of cures at the Northern Hospital for the Insane, in Wisconsin, is about 60 per cent.

Dr. Friedrich Wilhelm Theile, at one time Professor of Anatomy in Bern, died recently in Weimar, aged 78 years. When 26 years of age he lectured on anatomy and anthropology in Jena, and was soon afterward promoted to a professorship in that university. In 1834 he was called to the new university of Bern, to fill the position of Professor of Anatomy, a position which he retained for nearly twenty years. He was at one time Rector Magnificus of the University of Bern. In connection with Wagner, Henle, and others, he edited the revised edition of Sömmering's Anatomical Work, for which he contributed the section on Muscles. Since 1853 he had practised medicine in Weimar.

Effects of Smoking on the Heart.—Some years ago M. Decaisne drew attention to the fact that tobacco-smoking often causes an intermittent pulse. Out of eighty-one great smokers examined, twenty-three presented an intermittent pulse, independent of any cardiac lesion. This intermittency disappeared when the habit of smoking was abandoned. He also studied the effects of smoking on children from nine to fifteen years of age, and found that it undoubtedly caused palpitation, intermittent pulse, and chloro-anæmia. The children, furthermore, became dull, lazy, and predisposed to the use of alcoholic drinks. Recently he reported to the *Société d'hygiène* the results of his observations on the effects of smoking on women. Since 1865 he has met with and observed forty-three female smokers. Most of them suffered from disturbances of menstruation and digestion, and eight presented very marked intermittency of the pulse without any lesion of the heart. He gave detailed accounts of these eight cases, in which all treatment directed against the intermittency proved utterly useless, while the suppression of tobacco was invariably followed by improvement and very often by complete disappearance of the phenomenon.—*Gazette Obstétricale.*

Nursery and Child's Hospital.—The annual meeting of the Nursery and Child's Hospital Society was held recently at Fifty-first street and Lexington avenue. The financial report showed a total received for the year ending March 1, 1880, of $147,050.50, of which $12,468.79 remained in hand. The receipts of the Charity Ball were in excess of any previous season for several years.

Fourth Biennial Report of the Iowa Hospital for the Insane, for 1878 and 1879, Dr. A. Reynolds, Superintendent.—This report shows that the present number of inmates is 450, an increase of 132 in the past two years. The per cent. of recoveries on admissions has been 16; that of deaths, 13. There are now in the State about 1,300 insane. Dr. Reynolds makes some very sensible remarks in protest against expensive and luxuriant quarters for the insane. He advocates a State hospital for the chronic insane. A great deal is evidently done at the asylum to entertain the patients.

Diphtheria in Russia continues its ravages, and is carrying off from 50 to 70 per cent. of its present population. There are not enough doctors nor hospitals, and the people have no idea how to take care of themselves. A prevalent custom is, after the death of a child, to place a piece of bread in its mouth, and then, having made the sign of the cross, to take it out and distribute it among other members of the family, by whom it is eaten. Organized efforts are being made to furnish relief.

Extraordinary Case of Twin Pregnancy.—Dr. L. A. Wohlfarth, of Rosedale, Kansas, relates the following interesting case: He found Mrs. S—— in her ninth labor; the waters had come away and the os dilated to the size of a dollar. There being no pains he went away, and was not called again until three days later. He then found an arm-presentation. Version was performed and the child delivered. After waiting an hour for the placenta, examination revealed a second child, with head-presentation. This was soon delivered, and was found to be completely enclosed in a double placenta, and also enveloped in a sac, of the thickness of ordinary sheepskin. This latter condition, together with the position of the first child and the length of the labor, make the case an unusual one.

THE MEDICAL PROFESSION AS A CALLING.—It is strictly true that the medical profession is overcrowded, and cannot be regarded as an eligible 'calling' for needy men, or indeed for men who are not practically independent of their work as a means of livelihood. The laborer is worthy of his hire, and it is in the last degree desirable that a full and fair tariff of fees should be maintained, but we cannot recommend young men without sufficient private resources to enter the profession. It is because a serious mistake has been too often made in this matter there are in our ranks many hundreds of able but distressed practitioners who contend with eagerness among themselves for appointments of almost any class which seem to offer the means of bare sustenance. The profession labors under great disadvantages resulting from its crowded state and the impecuniosity of its members. One, though not the only, reason why the scale of payments for public services—for example, attendance on the sick poor—is so low, will be found in the number of eager applicants for any vacant post, let the emolument be small as it may. Parents, and young men of narrow means, will do wisely to be warned, and look elsewhere for a vocation which brings adequate rewards. There is not a word of exaggeration in the statements which have been recently made on the subject, and we trust they will have a deterrent effect.—*Lancet.*

THE PRICE OF QUININE is now $3.20 per ounce; that of dextro-quinine, $1.50 per ounce; of cinchonidia, $1.10; opium is at $5.50.

THE COLLEGE AND CLINICAL RECORD. This a new monthly journal, to be conducted especially in the interests of the graduates and students of Jefferson Medical College. It is edited by Drs. Richard J. Dunglison and Frank Woodbury, both of whom have had considerable experience in journalism. The first number is well printed and contains a number of valuable articles. It informs us that the number of matriculates for the year 1879–80 is 590.

RESIGNATION OF PROFESSORS.—Dr. F. D. Cunningham, Professor of Anatomy in the Medical College of Virginia, has offered his resignation, to take effect with the completion of the present winter course of lectures. Dr. A. B. Cook, Professor of Surgery in the Louisville Medical College, has resigned his position.

HIGH MORTALITY RATE IN LONDON.—The per cent. of deaths in London has of late been extraordinarily high. In the week ending January 31st, it was 31.6 per thousand; and in the succeeding week, 48.6 per thousand. This is without parallel since the cholera epidemic, and is due to the action of persistent dense fogs upon the respiratory organs of the aged. The excessive mortality is confined chiefly to those above the age of sixty. The mortality rate in London sometimes falls as low as eighteen per thousand.

BURNING OF A MEDICAL COLLEGE.—The building occupied by the Medical College of Indiana, Indianapolis, was destroyed by fire on February 10th. Most of the apparatus belonging to the institution was lost.

KINGS COUNTY MEDICAL SOCIETY.—The library of this society is being greatly enlarged through the efforts recently made by some of the members. A committee was appointed at the February meeting to consider the point in hospital management, regarding paid medical attendance, that has been suggested by Dr. Prout.

MEETINGS OF STATE MEDICAL SOCIETIES. The Missouri State Medical Society holds its next annual meeting at Carthage, on the first Tuesday in May. The Illinois State Medical Society meets at Belleville two weeks earlier.

THE FACULTY OF THE ST. LOUIS COLLEGE OF PHYSICIANS AND SURGEONS recently gave a dinner to the Board of Trustees. We are informed by the *St. Louis Clinical Record* that one of the results of the meeting was the raising a fund for the erection of a new college building and the conversion of the old one into a hospital.

THE NEW PENNSYLVANIA STATE HOSPITAL FOR THE INSANE, at Norristown, was formally transferred on Feb. 18th from the Building Commission to the Board of Trustees. The buildings are said to be well constructed, and are substantial rather than ornate. Their cost is at the rate of $744 a bed, which is less than the sum appropriated for the purpose.

CALLING FOR A STATE BOARD OF HEALTH.—A petition has been drawn up and presented to the State legislature, recommending the establishment of a State Board of Health for New York. Among the signers are Dr. Willard Parker, Howard Potter, the Rev. Dr. Bellows, A. A. Low, William E. Dodge, Charlton T. Lewis, Frederick Law Olmsted, Dr. Cornelius R. Agnew, Theodore W. Dwight, Peter Cooper, Abram S. Hewitt, Chancellor Crosby, and Jackson S. Schultz. The bill providing for this board is said to have a very good prospect of success.

THE CORONER SYSTEM IN ENGLAND.—A bill is now before parliament to remedy the defects of the present English coroner system, by securing coroners or medical examiners who are properly qualified by scientific study. During the past forty years there have been many failures in the administration of justice through inefficiency of the present system.

BOOKS RECEIVED.

CAUSES AND RESULTS OF PULMONARY HEMORRHAGE, etc. By REGINALD E. THOMPSON, M.D., Cantab. London: Smith, Elder & Co., 15 Waterloo Place. 1879.

THE THERAPEUTICS OF GYNECOLOGY AND OBSTETRICS, etc. Edited by WILLIAM B. ATKINSON, A.M., M.D. Philadelphia: D. G. Brinton. 1880.

A TREATISE ON ORAL DEFORMITIES AS A BRANCH OF MECHANICAL SURGERY. By NORMAN W. KINGSLEY, M.D., D.D.S., etc. With 350 illustrations. New York: D. Appleton & Co. 1880.

PHYSIOLOGICAL LABORATORY, Harvard Medical School, Boston. Collected Papers for Private Circulation.

LECTURES ON THE HUMAN EYE, etc. By ADOLPH ALT, M.D., etc. New York: G. P. Putnam's Sons. 1880.

PHARMACOLOGY AND THERAPEUTICS, etc. By T. LAUDER BRUNTON, M.D., F.R.C.P., etc. London: Macmillan & Co. 1880.

ATLAS OF HUMAN ANATOMY. By DRS. OESTERREICHER and EBDL. With Explanatory Text by J. A. Jeancon, M.D. Cincinnati, Ohio: A. E. Wilde & Co. Parts II., III., and IV.

THE MICROSCOPE AND MICROSCOPICAL TECHNOLOGY.—A Text-Book for Physicians and Students. By HEINRICH FREY. Translated and Edited by George R. Cutter, M.D. Second edition. New York: Wm. Wood & Co. 1880.

A PRACTICAL TREATISE ON NERVOUS EXHAUSTION (NEURASTHENIA). By GEORGE M. BEARD, A.M., M.D. New York: Wm. Wood & Co., 27 Great Jones Street, 1880.

Original Communications.

THREE CASES ILLUSTRATING LUXATION OF THE ULNA IN CONNECTION WITH COLLES' FRACTURE.

By E. M. MOORE, M.D.,

ROCHESTER, N. Y.

(A Paper read before the Medical Society of the State of New York, Feb. 4, 1880.)

It is now just ten years since I read a paper before this Society upon "a luxation of the ulna not heretofore described." The claim of originality in a matter of this kind, at this late day, was too great to be readily admitted, and it is a mild statement to say that it was received with incredulity. It will be recollected that my observation was founded on one case only, that of Mary Tumey, who sprang from a third-story window in a paroxysm of mania, and was instantly killed, making a few respirations for about twenty minutes. Both wrists were broken, and the spine opposite the second and third dorsal vertebræ was crushed. The examination of one wrist revealed, to my astonishment, the peculiar break and entanglement which I have described. Amazed at the result, which was not comprehended in its fulness at first, I proceeded to the dissection of the other wrist, and found precisely the same condition, with the exception of the line of fracture of the radius, one being nearly transverse, and the other quite oblique. The luxation of the ulna presented the same form of rupture of the lateral ligament, from the styloid process, with the same entanglement of the annular ligament. To my report it has been replied that there have always existed irregular luxations, that were not to be regarded as capable of classification. A regular luxation, so called, is one where the joint surface that is separated from its proper connections, is held in its abnormal but definite position, in obedience to definite forces. People do not often spring from third story windows, and this case, like the cause, is abnormal. This cavil, more specious than just, served to satisfy the conservative, and check further inquiry. The fracture of the radius close by the joint is one of the most common, and usually occurs from a fall upon the level ground, or from a step. This presents often very great, and heretofore insurmountable difficulties of restoration. Since the observation of the case of Mary Tumey, I have had far greater success in the management of these fractures, for I have relied upon the relation of the two conditions that I found in the autopsy of Mary Tumey, and that resulting from a fall on the level surface, as being similar, in consequence of the similarity of the appearance of the wrist. I, nevertheless, quite agree, that we must not insist upon appearance, and diagnosis founded upon it, without proof from dissection. Now, patients do not die from the circumstance of falling over on the hand. The combination of circumstances that would destroy life, and leave us with a definite force of this kind, must recur at very remote intervals of time. Great violence must occur in the cases where we can get autopsies, although the force at the wrist might not be more than common in Colles' fracture.

The doctrine I have taught my classes for the last ten years may be succinctly stated. The fall comes upon the palm of the hand, and the radius which sustains the full force of the strain gives way at a point near the wrist. The line of fracture is usually an oblique one, starting from a point on the anterior aspect of the radius, near the articulation, and running backward and upward, making the posterior surface of the lower fragment longer than the anterior. It is seldom more than an inch from the joint, and seldom so far. But the line of fracture is very various, sometimes simple and nearly transverse, but often comminuted to the last degree. The luxation of the ulna exists in more than half of the cases. I now feel quite sure, though I cannot demonstrate it by dissection, that a proper observation of the relation of the head of the ulna to the carpus will make a just diagnosis of its luxation or non-luxation. The force of the fall may be just balanced by the strength of the radius, but in the nature of such accidents this would not be often the case. In most, there would be some force still to be borne. Upon what structures does this fall? The radius instantly, on fracture, ceases to afford resistance, the hand is carried still further back, and then comes the strain on the attachments at the end of the ulna. It will be remembered that the ulna does not articulate with the wrist, but there is a distinct synovial cavity between its head and a strong membrane called the triangular fibro-cartilage. This membrane takes an origin from the rim and side of the radius, and, covering the head of the ulna, is inserted in the pit at the root of the styloid process. As the hand, with its broken fragment of the radius, is forced backward, the strain is often sufficient to rupture the connection between the two bones or to break the ulna near the head. I have seen this double fracture twice only. The rupture takes place at the weakest point, which is its insertion in the pit at the root of the styloid process. But this is not the only resistance. The styloid is held to the carpus by the internal lateral ligament, which takes a very firm hold upon the end and radial surface of the styloid. This also gives way, and usually does so in a peculiar manner—viz., by pulling off the surface of the bone, which proves to be weaker than the ligament. Thus the remaining styloid is brought to an edge like a gouge-chisel, and is shortened about one-half. When these resisting forces are disposed of, the end of the ulna, now laid bare, is pressed against the posterior annular ligament, and is apt to become engaged upon it either by a fold, or, what is more likely, by splitting its fibres and hooking upon it. If very great violence has been used in the production of these lesions, the head of the ulna will be driven forward through the annular ligament and skin, thus producing a compound luxation. These opinions were urged by me upon the profession, chiefly in consequence of the autopsy of Mary Tumey, but also from the very greatly improved results of treatment founded on these views. But I waited for further proof with no little impatience. The next case that goes to confirm the views I have brought forward, was one that proved the luxation by thrusting the head of the ulna through the skin. I report the case:

John O'Hara, æt. 40, a laborer in a lumber yard, fell from a lumber pile eleven feet high, striking with his outstretched hand on a plank road-way. The force was so great as to break the radius just above the wrist, also at its middle, and to dislocate it forward at the elbow. As might be supposed, the radius was much shortened. The ulna was freed from its attachments, as has been described, and pushed through the skin. In this condition the case was presented to me. I removed the end of the ulna with a saw, dressed the fracture, and reduced

the luxation at the elbow. The patient made a slow recovery, but finally obtained very good use of the arm. This bone I now present.

It is absolutely as first found. This adds another, now the third case, where the triangular fibro-cartilage and lateral ligament were torn off in precisely

FIG. 1.

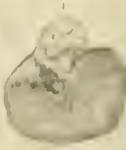

FIG. 2.

FIG. 1.—1, [illegible] observed by fracture; 2, articular surface; 3, [illegible] for attachment of triangular fibro-cartilage.

FIG. 2.—1, [illegible] observed by fracture; 2, articular surface; 3, pit for attachment of triangular fibro-cartilage.

the same manner; the two in Mary Tunney being only engaged in a rupture of the posterior annular ligament, and this one carried entirely through the ligament and skin. But it will be remembered that the two in Tunney's case were only accompanied with the ordinary fracture of the radius at the lower end, and only one fracture in each arm. Where the luxation of the ulna was compound, the radius was enormously shortened by two fractures and luxation at the elbow.

A case of this like O'Hara's has the full value of an autopsy, for the end of the ulna is in our hands, and the fracture can be diagnosticated without failure. I think, in view of the fact that the fractures in the case of Tunney were only of the ordinary character of those styled Colles', with a good deal of the peculiar deformity, that the mode of luxation found here may be fairly concluded to occur from apparently slighter forces, but which are sufficient to break the bone. But I now present you a specimen which, in a singular way, leaves no chance for argument or cavil with reference to the ability of the apparently moderate force to produce the luxation I describe. I am indebted for this to my friend, Dr. Thos. Collins, of Rochester, who was called to see a farmer, who, attempting to get out of his wagon, slipped from the hub, falling upon his hand. Upon examination, the radius was found to be broken, and the ulna was protruded through the skin. An attempt was made to reduce the luxation, but, to his surprise and that of his counsel, Dr. J. F. Whitbeck, it was found impossible to reduce it. Therefore it was sawn off, and the fracture dressed. I might add at this point that he made a good recovery, acquiring as good use of the arm as before the latter accident.)

FIG. 3.

FIG. 4.

FIG. 3.—1, End of ulna, sawed surface; 2, crust of eburnation.

FIG. 4.—1, Crust of eburnation; 2, obliterated articular surface covered with tags of fibrous tissue.

I now present this specimen. Upon inspection, it will be seen that it presents a very extraordinary appearance. The shaft of the ulna is apparent, but the side and part of the end is covered with as fine a specimen of eburnation as it is possible to produce. The extremity of the ulna exhibits, instead of a smooth articulating surface, a rough one made up of ruptured tags of cicatricial tissue. Inquiry revealed the fact of an antecedent fracture of the radius sixteen years before. The case, as rendered by Dr. Collins, is as follows:

Jacob Winslow, æt. 75, received the injury as above described Oct 2d, 1873. In the year 1857, while walking in a saw mill yard he stepped on a slab and fell over on his hand, producing Colles' fracture. The mode of treatment at this time is unknown. There can be but one inference from this case. We have, by the complete disappearance of the articulating surface, unmistakable proof of antecedent luxation. The eburnation also shows the effect of long and severe friction upon the side, the result of the severe and protracted labor of a farmer's life. The return of the luxation was attempted and failed in consequence of the extreme projection of the ulna, due to the antecedent accident. Several years elapsed without further proof derived from autopsy. But another case, resembling Mary Tunney's, occurred on the 11th of October, 1879.

Morris Huntington, æt. 56, a painter, fell from the roof of a three-story house, through a tree to the sidewalk. He was at once taken to the City Hospital, but lived only a few hours. A fracture of the wrist was observed, but he was so nearly moribund that it was not interfered with. I was invited, by the kindness of the staff, to make the autopsy. This was done by simply removing the skin from the posterior surface of the wrist, extending to the sides, thus coming at once upon the annular ligament. The end of the styloid chisel protruded through a rent in the ligament. This was carefully touched by Drs. Whitbeck, Montgomery, Little, Langworthy, Ely, Mallory, and others. It was precisely, in all its details, as before observed, and as I described it ten years since.

The next move in the dissection was the removal of the skin on the anterior aspect of the arm, and the division of the muscles and tendons down to the bones. These were then lifted up just far enough to see the end of the ulna. The triangular fibro-cartilage was torn out at the pit of the styloid, and the internal lateral ligament torn off with the end of the styloid, as in the other cases. I now present you this specimen in its wet state. The rent and luxation can be seen, and the styloid chisel is almost precisely the same in shape as that of O'Hara's.

This case confirms all previous observations. It would not unlikely have been a compound luxation but for the fact that the ulna was broken about three inches from the wrist, for the radius presents a condition of extraordinary comminution.

These five cases present all that I have seen. There are others that have not come under my own observation, and which were imperfectly observed, but which I thought best not to add. In four of these cases the peculiar rupture of the styloid was identical. Two of them you have before you. The fifth has been modified by time. As these are the only cases I have seen, and as they are all alike, I feel sure now of having described a luxation that has been overlooked. Luxations of the ulna have been noted, but they have been regarded as irregular and having no definite character. In the discussion upon this topic at the meeting of the National Association held at Buffalo, I took the ground that for every compound luxation of any joint we will have a

large number of simple ones. In the absence of statistics, which are not possible, I asseverated the round number of fifty. I repeat it on the ground that it could not be an exception to all our observations of other joints. A distinguished author replies that this could not be said of dislocation of the astragalus. But I rejoin that there is no analogy. The only analogue of the tarsus is the carpus. The ulna is a long bone, and must find its analogue among

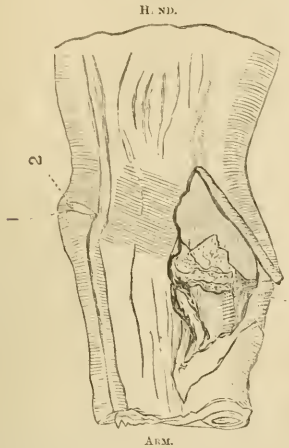

FIG. 5.—1, Button-hole in the posterior annular ligament; 2, broken styloid caught in button-hole; 3, fracture of radius.

the long bones. It requires very great violence to produce a compound luxation at any place. Less force produces the simple luxation, and this we have very often with Colles' fracture.

Thus far my paper has referred only to the evidence bearing on the question of the existence of luxation of the ulna at the lower end—evidence that is purely demonstrative, and beyond the reach of argument. But I feel justified in adding some inferences of observation on the living subject. In my previous paper I called attention to the position of the tendon of the extensor carpi ulnaris. It runs alongside of the head of the ulna and behind the styloid. When the luxation does not exist, and the fracture does, the head of the bone maintains its relation with the tendon but little disturbed. When, however, the luxation does occur, the tendon will appear to lie over the head. I feel quite sure that this does not result from any twist of the hand carrying the fragment of the radius. I find proof of the correctness of this proposition in the specimen before us. The dead tissue presents the tendon curved out of its place. In the living, under muscular contraction, this would be a straight line, and lie over the head of the ulna. I find also in what I deem cases of luxation, a mobility of the end of the ulna incompatible with the integrity of the ligamentous apparatus. Every observer has recognized a difference of the form of the wrist in different cases. Some are curved backward—the genuine silver-fork shape; others have the hand carried more laterally. My convictions are, that those that present the wrist well curved back, are more apt to be those of luxation of the ulna with fracture, but the lateral bend implies generally shortening of the radius from fracture without luxation of the ulna. In my previous paper I proposed a form of traction and circumduction which is intended to disentangle the ulna and carry it up in its place between the tendons of the extensor carpi ulnaris and extensor minimi digiti. I by no means wish to say that this is always necessary, for the great point should be not to relax any effort until complete restoration should take place. The gentle handling that is ordinarily employed in the management of the fracture is out of place here. Great force is often necessary to restore the symmetry of the parts. We must keep in mind that a luxation is to be reduced, and should not cease our traction until the end is attained. Besides, the muscles will produce consecutive luxation instantly if the parts are not held firmly until the dressing is complete. With the thumb of the surgeon under the ulna, and the hand beneath, and the fingers upon the back of the wrist holding with great firmness, I apply my dressing. This, it will be remembered,

FIG. 6.—Position of roller compress.

consists of a simple roller from half to three-quarters of an inch in diameter and two inches long. This is to be carefully placed under the ulna, abutting against the pisiform bone and slowly displacing the thumb. Then a strip of adhesive plaster of the same width is drawn with as much force as it will bear around the wrist and pinned to prevent relaxation. The band of plastered cloth is carefully adjusted so that the distal edge is brought around on a line with the end of the radius. It is manifest that this bandage will grasp the broken fragment, and hold it to the end of the ulna. The rule of loose dressing at first is distinctly violated for a purpose. I repeat that I draw it as firmly as I can, often breaking the plaster cloth. The dressing is entirely complete by the use of a sling which must not be more than three inches wide. This must be placed over the roller, and is made of this width to cause the whole bearing to come on the roller, which is both compress and splint. The hand is brought down and allowed to hang naturally. Thus its weight and that of the forearm is used to press the ulna upward into its proper place.

If all this is successfully accomplished, the broken fragments of the radius are easily kept in place.

The full length of the arm is maintained if the ulna does not fall down and the tendons that run over the back of the wrist are as closely parallel as to make the best possible splint. I do not continue to quote a violation of the primary rule in dressing

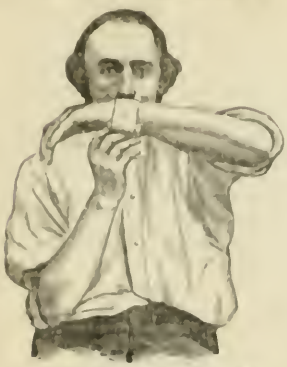

FIG. 7.—Roller, with adhesive strap applied.

fractures, as to retain the bandage in its tight condition; but, after six hours, cut it by thrusting one blade of a pair of scissors under it on the back of the wrist, dividing it completely. The few hours of such retention seem to be sufficient. The meagreness of the appliance has startled some who have attempted its

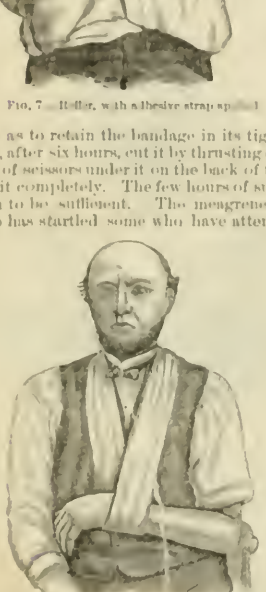

FIG. 8.—Colles' fracture; dressing complete.

use. But any addition that I have made has injured it. I find there is a strong disposition on the part of the patient to hit up the hand with the sound one. With unintelligent patients this is often troublesome, and a splint of iron, thin, such as hoop-iron, bent so as to come over the back of the wrist and hand, and bound upon the forearm but not upon the hand, will guard against this error. I am careful not to bind the hand to it, for I desire the constant action of gravity. The position can be maintained, even in the recumbent posture. The slight motion in the joint which will necessarily be produced by allowing it to hang freely, prevents the stiffness that is so often a very serious inconvenience after the treatment of this fracture.

There is another question to be answered: How good are the results? My experience has been considerable, as my professional brethren have shown me their cases when treated after my method. When there is much comminution there will be some absorption of the bone. This will produce a slight deflection. But if the fracture is transverse, deformity can hardly be said to exist. As in other luxations, the union of the ligaments is apt to result in their elongation, making, when the cure is perfected, a certain laxity and mobility of the head of the ulna after the fracture is perfectly firm. When the fracture is transverse, I have removed the bandage at the end of two weeks, but in other cases the treatment has been extended to four weeks.

I would remark that the reputation of the pistol-shaped splint, Bond's, Levis's, and most others, can be explained. If great pains is taken to restore the parts, the flexed position of the hand will have a tendency to keep the restored ulna in place, especially if suitable compresses are used. These can be well adjusted in Bond's and Levis's splints. Moreover, in those cases in which there is no luxation, the results are apt to be good in the fixed position, for the full length is obtained because the ulna is not disturbed. Where luxation occurs, the muscles have a constant tendency to displace the ulnar head, and when slipped downward the least, it is apt to remain. I therefore prefer gravity to any fixed splint, for the compresses, even if applied tightly, will yield, and any relaxation of the retentive force is apt to be accompanied with displacement. Moreover, by my simple dressing, the parts are under view without its derangement. I would urge the profession to banish the fear of its use as leading to disaster, with the full conviction, founded on the experience of my friends, that once understood and practised, no other would be thought of.

DIAGNOSIS AND TREATMENT OF DIPHTHERIA.

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As designated by the title of this paper, we are to restrict ourselves in the discussion of diphtheria to two of the more important questions—its diagnosis and treatment. It shall be our object not so much to advance any new ideas as to review the position of the profession and to establish what is positively known. The vast extent of the subject will require extreme brevity in many particulars. In the consideration of the diagnosis, it is of primary importance to appreciate the fact that diphtheria is not necessarily accompanied by pharyngeal disturbance. This necessitates a division of the question into, 1st, simple or pharyngeal; 2d, laryngeal; 3d, cutaneous; 4th, nasal; and 5th, secondary diphtheria.

SIMPLE OR PHARYNGEAL DIPHTHERIA.

Modern writers subdivide this form into, 1st, a mild or catarrhal; 2d, a severe or croupous; and 3d, a gangrenous variety. Each of these, in turn, is to be distinguished from other troubles.

Before entering upon a further discussion of the diagnosis in particular cases, it is well to make the general assertion that no single symptom taken alone is diagnostic.

The mildest form is often difficult of recognition. In simple catarrhal tonsillitis we have, in addition to redness and swelling of the mucous membrane, a yellowish, sticky mass, which can be wiped away; not membraniform, and may be seen to dip into the follicular depressions. The exudation, however, may be in strips. Furthermore, there may be erosions of the mucous membrane, and ulcerations, with suppurating bases, with distinct borders, and loss of substance, which Oertel considers diagnostic, inasmuch as there is no such loss of substance in the mild form of diphtheria.

Trousseau adds, by way of diagnosis of what he terms herpetic or membranous sore throat, that when you have learned that an acute burning pain in the throat has for several days been preceded by general symptoms of illness, febrile discomfort, and disorder of the stomach, you may conclude that you have a case of simple membranous sore throat. Generally speaking, diphtheria is far more insidious, and, as a rule, fever has scarcely made its appearance when throat trouble is recognized. But, more than all, the coexistence of herpes labialis will at once exclude diphtheria. Yet he recognizes cases where time alone can make a diagnosis positive.

As opposed to this, there appears at points upon the tonsils, in the mild form of diphtheria, a seromucous matter, becoming more adherent to the mucous membrane, which is slightly hyperæmic and swollen, growing more dense and yellowish, increasing in size, soon coalescing and becoming slightly elevated. Thus, in a period varying from a few hours to a few days, in different cases, there is presented a real membrane, its removal producing hemorrhage, and followed by another reproduced in its stead. The general symptoms are usually mild. Despite treatment, this form may develop into a severer type. Mild cases of diphtheritic pharyngitis, without even the occurrence of the membrane, may at a later period in their history disclose their real nature by the sequelæ they may present.

Upon superficial examination, aphthæ may be mistaken for diphtheria, especially where the broken vesicles may run together and form ulcerations.

With the *severer* type we may have quite extreme general symptoms; high fever, great prostration, cerebral disturbance, tumefaction of the spleen, and some other typhoid process, may be suspected. The examination of the pharynx, however, will clear up all doubt.

Prior to the appearance of the exudation, the mucous membrane will be darkly reddened, swollen, and dry. After a few hours its surface will either in part or entirely become peculiarly gray. In time the exudation assumes the appearance of real membrane, of a white, dull silvery, or gray color, and raised above the contiguous surface. Whatever its microscopical construction may be, its macroscopic appearances are sufficiently characteristic and known to every one present. From here, involving the entire soft palate, it may extend downward into the œsophagus or air-passages, and upward into the nares, Eustachian tube, and middle ear; or, furthermore, involve the entire cavity of the mouth, and even the tongue. After the second day the glands of the neck are swollen. With time we may have the kidneys, heart, or lungs involved, or paralytic or nervous phenomena. Wunderlich tells us that in no disease is the thermometer of as little service in diagnosis as in diphtheria.

From this form we have to diagnosticate, first of all, scarlatina. When accompanying this variety we have erythema of the neck and chest, a diagnosis may be difficult. Meigs and Pepper, and likewise Wagner, remark that neither ocular nor microscopic examination of the deposit in the throat can distinguish these two diseases, assuring us that we must look to the general symptoms for a diagnosis. As to the erythema of diphtheria, "it appears at irregular periods, is partial, appears suddenly in patches, does not gradually deepen in intensity, is of a uniform, erythematous redness, and without the punctated appearance peculiar to scarlatina." The albuminuria of diphtheria occurs at an early period, usually increasing in quantity as the disease reaches its height, or may disappear suddenly. It maintains no relation to the severity of the remaining symptoms. In the sequelæ there is, furthermore, the widest difference both as to the paralyses and the dropsy.

The third subdivision of this group is not difficult of recognition. We no longer have the simple exudations above described, but find, either supervening upon the preceding or assuming these characteristics from the commencement, "a dark, discolored, pulpy, broken-down mass, or more firmly attached sloughs, with the peculiar odor of gangrene, often cadaverous," at first destroying parts of the soft palate, but later followed by more extensive destruction, the tonsils entirely sloughing out, as noted by Henroz. Extending into the nares, there will be severe hemorrhages. Extreme swelling of the lymphatic glands is present. Usually death follows from exhaustion, high fever, or septicæmia. Scarlet fever alone presents a condition at all akin to this. The history of the cases, together with the general symptoms, will usually make the diagnosis.

LARYNGEAL DIPHTHERIA.

The literature of our subject reveals the fact that there is hardly a point which is not disputed, whether it be upon the etiology, pathology, diagnosis, or treatment. Laryngeal diphtheria is not only no exception, but furthermore affords almost the greatest diversity of opinion. Can we diagnosticate membranous croup from laryngeal diphtheria, or are they identical?

Wagner considers them but different degrees of severity of the same disease. Bristowe makes no attempt at a diagnosis. Meigs and Pepper, after asserting that there is no pathological difference, proceed to say that clinically the differences between the two forms are not sufficiently marked to constantly establish their diversity, and that in their opinion the vast majority of cases of pseudo-membranous laryngitis are cases of primary laryngeal diphtheritis, with constitutional symptoms not marked, the faucial deposit overlooked, or, having been present, had disappeared before examination; while Lewin considers it impossible to make a diagnosis clinically, and insists that the only differences are recognized pathologically.

Hillier, after quoting three cases—the first evidently pharyngeal diphtheria, in which the disease had extended into the larynx; the second, a case of laryngitis with membrane, in which death occurred, without pharyngeal or general disease, from asphyxia; the third, apparently a case of non-contagious laryngitis, with albuminuria after the ninth day—insists, in an argument covering many pages, upon their identity. Dr. Jenner, formerly a strong advocate of their non-identity, seems recently to have been converted to the opposite faith. Prof. Jacobi also maintains their identity, and Thursfield, Luzsinsky, and Küster profess the same belief; while Loeb, Letzerich, and

others, assert that they have found the two processes at the same time in the same larynx, and Zoerl reports an epidemic of [illegible]

Among the strong advocates of their non-identity are Thost, Niemeyer, Oertel, Treitz-Isenbiehl, Cohen and Oppolzer. As diagnostic points the following are pointed upon:

1. [illegible] 1. [illegible]
2. [illegible] 2. [illegible]
3. [illegible] 3. [illegible]
4. [illegible] 4. [illegible]
5. [illegible] 5. [illegible]
6. [illegible] 6. [illegible]
7. [illegible] 7. [illegible]
8. [illegible] 8. [illegible]
9. [illegible] 9. [illegible]
10. [illegible] 10. [illegible]

Time will not permit an extended analysis of these points and the objections thereto, further than to remark that many able observers have seen albuminuria supervene upon "membranous croup;" that pharyngeal patches are considered an essential characteristic of simple membranous laryngitis, in France; that we have paralyses occurring after many other affections, and that, if the laryngeal disease appear early, there need be no marked fever or asthenia.

A question of considerable importance must not be overlooked here. It is the *laryngoscope* as an aid to diagnosis. With it, first, the presence and extent of the disease in the larynx can be made out; secondly, its absence, where from hoarseness or aphonia it had been suspected, can be distinguished. Under this head, Czermak reports a case where the attendants were preparing for tracheotomy, because of attendant suffocative symptoms, which was not undertaken, as the laryngoscope failed to detect any laryngeal diphtheritis. Lewin has with it seen the disease spread from pharynx into larynx. Fieber has diagnosticated catarrhal laryngitis in a case complicated with pharyngeal diphtheria. Martin has seen diphtheritic disease associate itself with catarrhal laryngitis which had existed an entire month previously. Polypi have been discovered as the cause of laryngeal symptoms in diphtheria. At a later stage paralysis of the epiglottis has been detected, or other paralyses have been revealed, and colloid degeneration of the cartilages witnessed. Its use in young children is, of course, impracticable.

NASAL VARIETY.

Usually diphtheria appears in the nose as an extension of the disease from the pharynx. Bretonneau and others, however, describe it as occasionally a primary affection. Scott reports, in the *Glasgow Medical Journal* in 1869, four cases of primary nasal diphtheria in one family.

During an epidemic of diphtheria we have in a given case the symptoms of ordinary coryza. Soon after, however, the marked adynamic condition of the patient, the high fever, the enlarged lymphatic glands of the neck, the changed secretion into one of a muco-purulent character or a foul-smelling, brownish colored or bloody discharge, excoriating the tissues over which it passes, with resulting ulcerations covered with characteristic membranes, renders a diagnosis unmistakable. Here also the rhinoscope may distinguish, at an early stage, characteristic marks in the posterior nares or at the base of the skull.

CUTANEOUS DIPHTHERIA.

A word will suffice for this variety. Its diagnosis depends upon the appearance of the membrane upon an abraded portion of the skin. Instances of this occurrence as a primary affection are not wanting. Frölich reports a case of a woman who had lost three children with diphtheria. Having a sore upon the nasal septum of their youngest, as a poultice, and diphtheria of the fingers, with subsequent general infection and death, resulted. Caspary, the case of a boy with excoriation of the nates, having diphtheria associate itself thereto. Subsequent paralysis resulted therefrom. We might multiply examples. Cases of primary diphtheria of the vulva are by no means rare, in which at a later period the general symptoms make their appearance.

Mention of another class of cases must here be made. Diphtheria often follows operations in surgical cases. Before mentions it as a frequent appearance in the Charité, saying that, when occurring with plastic operations, they were rendered more dangerous to life than amputations of the leg. With burnt up the membranes never appeared upon the new surfaces, but always upon the mucous membrane of the mouth. Two cases are recorded by Billroth in the *Wiener medicinische Wochenschrift* of 1870. In the first, diphtheria of the wound occurred after a resection of the inferior maxilla, followed on the fourth day subsequently by pharyngeal and tracheal diphtheria, and death on the sixth. The second, a man, in whom an exarticulation of the shoulder-joint followed a dog-bite, a pyæmic condition of the wound necessitating it. He died on the eighteenth day thereafter, the post mortem revealing diphtheritic membranes upon the tonsils, arches of the palate, and in the larynx, trachea, and bronchi. It was impossible to trace the source of the disease in either case.

SECONDARY FORM.

Among the most dangerous circumstances under which, generally speaking, diphtheria can occur, is when it is found to follow or be added to some pre-existing disease. It has been known to appear in patients afflicted with measles, scarlet, typhus, and typhoid fevers, whooping-cough, bronchitis, pseudo-croup, pyæmia, puerperal fever, erysipelas, and also with disease of a more chronic nature, as in tuberculosis of the lungs, diseases of the kidneys, suppurative inflammation of the joints, and chronic diseases of the liver. In most of the cases there is an aggravation of the general condition. There is no fixed method of its appearance, other than in the primary forms: at times with more prominent local, again with more marked general symptoms. There is usually no difficulty in its recognition.

Before closing with the diagnosis of diphtheria, there are yet to be considered the diagnoses of several complications that may appear in the course of the disease.

1st. *Heart-clot.*—Pain in the pit of the stomach; difficulty of respiration; at times peculiar, intense dyspnœa; anxiety; agitation; face at times livid, at times pallid; great prostration; coldness of the extremities; feeble, small, irregular pulse; dull, weak, or muffled heart sounds, with an occasional murmur; ordinary pulmonary sounds normal, but occasionally emphysema. Cases of this kind are reported by Chisholm, Armand, and others. Bengelsdorf mentions one of a boy of eight, who, during convalescence, was suddenly attacked with vomiting, followed by collapse, a quickened, irregular, and weakened

heart's action, systolic murmur at the apex, increased lateral dulness of heart's area, cyanosis, and death. Clots in both ventricles.

2d. On the fifth or sixth day of the disease, occasionally earlier or later, there may be a sudden rise in temperature, enteralgia, nausea, meteorismus, a decided decrease in the amount of urine passed, sensitiveness over the region of the kidneys. Children under five years of age may have convulsions, others appear drowsy. The urine, upon examination, is found albuminous, with casts, and thus disease of the kidneys is diagnosticated.

3d. A more rare appearance is one that requires but its mention to secure its diagnosis: emphysema of the skin, without tracheotomy. Güterbock reports five cases. Traube and Virchow consider it indicative of interlobular emphysema of the lungs. No cases affected with it have been known to recover.

4th. The paralyses occurring with diphtheria are not difficult of recognition. The nasal, its most frequent form, announces its presence by the production of a nasal voice, then regurgitation of food through the nares. The soft palate becomes relaxed, and fails to respond to any irritation. Diphtheritic paralysis may become quite general; cases are on record of paralysis involving the ocular muscles, the ciliary muscle, epiglottis, muscles of the larynx, face, extremities, back, and scapula—in fact, almost all parts of the body. Even locomotor ataxia has been noted, the history of the case and the concomitant symptoms alone rendering a diagnosis positive. The vagus also is at times affected, and establishes its diseased condition clinically after the following manner: paleness; coldness of extremities; præcordial distress; gasping; breathing with normal respiratory murmur; irregular pulse; instead of heart-sounds, weak murmurs. Electricity properly applied by Duchenne relieved these distressing symptoms.

The extension of the disease into the Eustachian tube is diagnosticated by the pain in the ear it produces, especially with swallowing. Diphtheria of the œsophagus cannot be diagnosticated clinically (Steffan).

Considering the *prophylaris*, we must bear in mind the established contagion; remember that deleterious hygienic conditions favor it, promoting the production of the disease and increasing the susceptibility thereto. The sewers should be carefully inspected; defective ventilation corrected; overcrowding of people in dwellings checked; excretions properly disinfected; the isolation of cases secured; members of the family free from the disease not permitted to convey the disease to others; all instruments used thoroughly disinfected before use in non-diphtheritic cases; the general health cared for; the resisting power increased.

Furthermore, the sad experience of the many physicians who have lost their lives, acquiring the disease while attending those afflicted with it, and of the equally large number who have conveyed it to their families, must ever remind us that we are but mortal.

In 1872, in Siebenbürgen, they succeeded in stamping out an epidemic only by means of the extreme isolation we practise in small-pox.

Local treatment.—The advocates of the local treatment claim with it, 1st, to restrict the disease, by those favoring its local origin, to prevent general infection; 2d, the speedy removal of the membranes; 3d, the maintenance of the health of the surrounding tissues.

The abstraction of blood is harmful, leech-bites a new seat for the disease. Rehan urges scarification. Ice is strongly recommended by a large number of observers, for local application and internal use. Kunze, however, objects to it. Oertel says its object is only to relieve pain, especially useful when there is much engorgement. Letzerich favors the frequent removal of the membrane, following it by strong cauterization of the abraded surface. Generally, however, this is disapproved. Strong cauterizations, with whatever substances, tend—despite the evidence of a few—in the eyes of the vast majority, to increase the infiltration of the tissues, favor the diffusion of the disease into the depth of the affected parts, gain a more ready entrance into the circulation for the virulent matter—in fact, aggravate the disease generally. J. Solis Cohen considers chlorine the best remedy locally and internally, as do also Balfour and Dyes, of varying strength according to the age. But few local remedies are used so largely, and approved so highly, as the tincture of the chloride of iron.

Of the other disinfectants used, the following have each their warm advocates, as well as their opponents: salicylic acid, carbolic acid, sulphurous acid, sulphur, permanganate of potassium, and chloral hydrate. A second class of medicaments are the solvent. At their head lime-water must be placed, somewhat improved in its action by the addition of a caustic alkali, about 2 gtt. to the drachm. Lactic acid, alcohol, bromine and its compounds, the salts of sodium and lime, pepsin, chloride of ammonium, must undoubtedly be considered inferior. Another class still are the astringents, of which tannin, sulphate of zinc, and Monsell's salt in powder, are to be given the preference. Furthermore, these have been applied with doubtful effect: the tr. of iron, the various balsams, the cyanide of silver, calomel, and turpentine.

The chlorate of potassium has, until recently, enjoyed quite a specific reputation. At present, however, it is being quite generally discarded. Prof. Jacobi advises its use in cases where catarrhal stomatitis is also present, in order that the surrounding tissues may be rendered healthy.

Carbolic acid has been injected into the tonsils by Traube, in three per cent. solution. The above-mentioned astringents, disinfectants, and other chemicals, have been used as gargles, washes, insufflation in powder form, and in every imaginable way and of varied strength.

Of late Eidam and Oertel have been advocating the use of steam. The latter argues in its favor, at great length, in Ziemmsen's Cyclopedia, claiming for it the production of an increase in suppuration, with a consequent line of demarcation, even within twelve to eighteen hours after its use; no further spread of the local disease; a rapid separation of the membrane, with no reproduction thereof. This plan, furthermore, by producing a layer of pus next the mucous membrane, renders impossible all further absorption of the diphtheritic poison, which, in his mind, keeps alive the disease. As medicated solutions, he uses alcohol properly diluted, chlorine water, fifteen to thirty per cent., permanganate of potassium, 1½ to 2½ grs. to the ounce, or carbolic acid, 2½ grs. to the ounce, usually as gargles, as with the steam they are too irritating. The steam inhalations are kept up for a quarter of an hour at a time, and repeated every half-hour or hour.

Schwanda, of Vienna, acting on the principle of the local origin of diphtheria, as explained by the

germ theory, and the fact that electricity has the power of affecting lower organisms, has used the electrical treatment in simple cases of diphtheria. Among noted patients treated in this manner were the renowned Professor Gustav Braun, of Vienna, and the Duchess of Wurtemberg, in both of which cases he reports cures after two or three applications, and improvement with each sitting.

Whatever pathological opinions the profession may entertain, all are united in the conclusion that, of itself, local means are inefficient, and that our main reliance must be upon general treatment.

As to the *agents* for this disease:

1. Swearingen, of Fort Wayne, regards as such, prompt cinchonism.

2. Schetten, of Dresden, with sulphurous acid internally, has delivery once on the third day and no attendant implication of the lymphatics.

3. Of late, L. W. Chapman, of Brooklyn, claims for the early use of alcohol a specific effect. He uses as much as can be tolerated without producing excitation. He considers it an antidote, and hence does not await any signs of depression. Oertel, however, finds that its premature use may produce an effect contrary to what has been expected, increasing the frequency of the pulse, elevating the temperature, irritating the brain and cord, and exhibiting serious nutritive disturbances. Hillier also has seen bad results with it. While a case of my own, a child twenty months old, died despite the fact that during two weeks she took a gallon and a half of Rhine wine and a large amount of old cognac.

4. The fourth specific of recent origin is the natron benzoicum, or benzoate of sodium. First recommended by Buchholz, later endorsed by Klebs and Braun, it seems, further, to have stood the test of Max Schüller in the *Deutsche medicinische Wochenschrift*, Nov. 11, page 123, for the year 1878. Its administration was followed not only by prompt defervescence, but also an apparent check was put upon the progress of the disease. The use of ten to twenty grammes, or 3 ijss. to 3 v. in the course of the day, was practised. Prof. Jacobi, who has used the drug in diphtheria, reports it a useless remedy. It is, however, the subject of considerable controversy today in Germany, but more particularly in Austria.

5. Sansom, in the *British Medical Journal*, Dec. 24, 1870, extols the virtues of the sulpho-carbolate of sodium. He relies upon it exclusively in the treatment of diphtheria, using it with an adult in doses of twenty to thirty grains, three times daily, and occasionally even in drachm doses every four hours.

Henoch, dividing the disease into three grades of severity, says the milder cases are cured with any, and without any treatment; the more severe, by no treatment as yet known can be prevented from becoming still more severe; whilst the most severe, including the gangrenous and most cases of laryngeal disease, are fatal under any treatment.

The disease has a tendency to terminate fatally, because of asphyxia, high-fever, asthenia, hemorrhages, exhaustive vomiting, or diarrhœas, syncope, and complications arising from disease of the kidneys, heart, lungs, or other internal organs, and arterial or nervous systems. These must furnish the indications for treatment.

The following principles are well established: first of all, that there be in the sick-room pure air, as few attendants as possible, the temperature of the room about 68° to 70° F. The high fever is to be held in check by sponging, baths, quinine, salicylic acid, mineral acids, or other antipyretics. All exhaustive discharges to be checked. All tendency toward exhaustion struggle to be fought with highly concentrated nourishment, strong stimulants, and tonics. The toleration of stimulants in severe cases is marvellous. Flint mentions the case of a girl of fourteen, who took one half ounce of brandy hourly. Oertel has given as much as a gallon in the course of the day. Their moderate use is absolutely necessary prior to the appearance of exhaustion.

Iron and quinine are constantly indicated. Of the former, the tinctura ferri chloridi is generally used—as a rule, fully as well as the dialyzed iron. In extreme cases Bertenchiff's preparation, containing one per cent ferri chlorid, dissolved in one part of ether and three of alcohol, combining as it does, stimulant and tonic properties, is recommended. Dr. Slade is under the impression that with preparations of cinchona and alcohol only has he seen real improvement. Hallier's acid is an excellent tonic in some cases.

Good diet must form a great feature of the treatment, and, when the stomach alone fails to accept enough, rectal alimentation must be resorted to.

When extreme exhaustion seems to threaten life momentarily, Demme has seen excellent results and permanent cures follow the transfusion of blood.

Aside from these established rules, we have the French claiming good results from calcules in large quantities; Lasserre urging the early and extensive use of diaphoretics; a large number of observers claiming good results from the internal use of sulphurous acid, permanganate of potassium, chlorine-water, and other disinfectants, and a large number of equally reliable authorities denying their utility. With many the sulphites are the *sine qua non*.

Against the long-continued and extensive use of the chlorate of potassium internally, Prof. Jacobi, at the last State Society meeting, raised his voice, claiming that, when used to exceed one-half drachm in twenty-four hours, with a child less than three years of age, or more than two drachms in an adult, we were sure to have nephritis. Furthermore, he argues that it does not furnish oxygen to the blood, as it has been repeatedly proven to leave the body chemically unchanged. The tendency to syncope must not be forgotten. Hence, exertion of whatever kind, excitement, or other causes that might occasion it, must be carefully avoided.

Where the nares are involved, either primarily or secondarily, in addition to the general measures above-mentioned, the local measures applicable to the throat are to be used. Cleanliness, disinfection, a free supply of steam, or water with the douche or syringe, are the special points indicated.

Cutaneous varieties are not to be disregarded. In addition to the local, general treatment is to be instituted. The secondary forms in particular, because of their fatal tendency, will require the utmost care and the best of engineering with reference to sustaining measures.

The presence of heart-clots need not cause us to despair, as Robinson has seen well-marked cases recover. Produced as they are, probably, by hyperinosis, the salines, the citrates and acetates, ammonia either in liquid form or as the carbonate, or the injection of alkaline solutions into the veins, are indicated, while general sustaining measures are to be vigorously pushed.

Where kidney complication is present, the acetate of potassium in addition to digitalis internally, or applied locally in the shape of fomentations with

the infusion, render good service. Letzerich suggests hot applications to the region of the kidneys, while Browning urges the local application of electricity, especially where there is a cessation of the urinary secretion.

The paralyses are usually cured with strychnia and time. If not, other tonics and electricity here also help us out. As much as a thirtieth of a grain of strychnia has been given a child three years of age three times daily.

Finally, we are to consider the treatment of laryngeal complications. The tendency to death is by asphyxia. Among the means for securing relief are emetics to cast off the false membrane and alkalies to perhaps gain its solution. Albu injects lime-water into the larynx and trachea to gain this last point.

When, however, vomiting no longer secures relief, emeties are helpless, stenosis increases, the remissions between the asphyctic attacks disappear, anæsthesia of the skin appears, it is time to consider the question of tracheotomy. If then, the beginning asphyxia be not of spasmodic origin, susceptible of relief from chloroform or belladonna, or produced by œdema of the aryepiglottidean folds relieved by incision, or of loose membranes which can be removed by the forceps, the operation is indicated.

Age is no contra-indication. Dujardin has operated on children one year of age; Bourdillat at ten months, Foster at eleven months, Isambert at sixteen months—all successfully. Archambault, in fifty-three cases, where there was complete insensibility, was successful in saving seventeen lives. One of these was a child of thirteen months. Many observers have seen cases where the disease had not only spread into the larger bronchi, but also into the more minute ramifications; have witnessed congestions of the lungs, broncho-pneumonias, and many other complications present at the time of operation, and not impede their recovery. Indeed, Trousseau says there is no contra-indication.

Of a vast number of statistics now before me, it is a frequent observation to find operators with thirty-three per cent. successes, and occasionally those fortunate enough to save half their cases.

As to the method of operation, the low operation is usually avoided. As a rule, it is considered better to at once cut down to the trachea. Bourdillat, with this plan, saw ten recover out of sixteen operated upon, and the Hospital of St. Eugene had thirty-five per cent. successes in 1866 and forty per cent. in 1867. Time forbids further discussion of this question.

Hofmokl tells us to remove the tube when defervescence occurs, when on closing the tube a candle can be extinguished with the breath at a distance of fifteen to twenty centimetres, and whispered words can be uttered. No trial attempts in its removal are to be made. In all cases a normal voice and no stenosis of the trachea resulted.

V. Koepl, in discussing the after-treatment, reports a case carried out into the open air, no medicine given, and a cure resulting (Transactions of Physicians of Steiermarkt, 1871). Steiner, however, restricts the diet, creates a warm, moist atmosphere, secures a free amount of oxygen, binds a moist cravat about the neck, which is constantly remoistened, and secures extreme cleanliness of the tube and wound. Busch, Settegast, Monti, and others, keep up steam inhalations of lime-water, and watch carefully the general symptoms.

PROGRESSIVE PERNICIOUS ANÆMIA:

A Disease of the Vaso-Motor System.

By HERBERT W. LITTLE, M.D.,

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Cases of progressive pernicious anæmia are not of very common occurrence, and are generally of sufficient interest to demand some little attention on the part of the practitioner. The following case occurred during the service of Dr. Burrall:

Mary Ann C——, aged twenty-seven, was admitted into the Presbyterian Hospital, October 1, 1879. She was a single woman, had lived in the country most of her life, and had been in comfortable surroundings, although she had acted as a domestic. Her family history, as far as was known, was good. She had always been a temperate, hard-working woman, and had enjoyed excellent health up to last June. At that time she suffered severely from intermittent fever while residing in a malarious district in Westchester County, N. Y. She lost her appetite at this time, and had slight frontal headache and general malaise for three days at the commencement of the attack, followed on the fourth day by œdema of the legs and feet; no ascites. Lost much of her hair subsequently, but felt no other after-effects. She was quite well again until three weeks ago, when she was thoroughly wet in a storm, and went home feeling chilly, and generally miserable. The following day vomited much, and has continued to do so at intervals since. Became very anæmic; lips and nails colorless; slight headache; lost her appetite; passed urine freely.

When she came under observation, she was a woman of medium size; hair black, sprinkled with gray. Body well covered by fat; extremely anæmic; slightly jaundiced; some œdema of feet and legs. No fever. Tongue large, papillæ pale and flabby. Slight attacks of pain in the abdomen, extending from the epigastrium to the back and lumbar regions. Frequent nausea, and vomiting of food, with a clear, yellow fluid. Bowels constipated. Heart, lungs, and kidneys normal; liver and spleen somewhat enlarged. Sleeps well. Venous murmur in the neck; pulse weak and gaseous. She feels extremely weak. Urine abundant (forty-one ounces in twenty-four hours), which, on examination, gave a negative result. A few drops of blood were taken from the finger for microscopical examination, which showed that the red corpuscles were few, and did not cohere in rouleaux; the white corpuscles were not in excess.

The œdema of the feet and legs disappeared while the patient remained in bed. Vomited a greenish fluid, and about all she ate; appetite poor. On the 10th the œdema of the eyelids, which appeared four days previously, disappeared, and the vomiting was somewhat checked. She seemed to be a little better; a slight tinge of color appeared in her cheeks.

On the 15th vomiting again appeared, also bleeding from the gums. Passed urine frequently; getting weaker. Vomiting and weakness gradually increased until the 17th, when she had a sudden change for the worse, becoming very restless, and asking to sit up in a chair. Sank rapidly, and at 6.40 A.M. she died.

Necropsy, made by Dr. W. H. Porter, thirty hours after death. Body apparently not much emaciated; but when section was made, the apparent plumpness of the body was due, to a great extent, to the œdematous condition of all the tissues.

Pericardium and heart.—The sac was normal, but contained eight ounces of clear serous fluid. Heart weighed ten and a half ounces; fatty and anæmic. Valves free.

Pleuræ and lungs.—Extensive pleuritic adhesions were found over the entire surface of the right lung; left, free from adhesions. On section, both lungs were found normal, with the exception of a small cheesy nodule at the apex of the right lung. Weight of both lungs, thirty six ounces.

Spleen.—Enlarged and flabby; weight, sixteen ounces.

Alimentary tract and bladder.—Normal.

Kidneys.—Weight of left kidney, six ounces; weight of right kidney, five ounces. Capsule non-adherent. On section, the surface was very pale, almost white, and looked fatty. Numerous small ecchymotic spots were seen in the pelvis, such as are seen in the yellow kidney of scarlatinal nephritis. On microscopic examination they were found fatty, the epithelium swollen and granular, indicating extensive parenchymatous changes. Numerous small, round corpuscles were also observed.

Liver was considerably enlarged; weighed sixty-six ounces. Portal circulation free. Gall-bladder contained two gall-stones with irregular surfaces. On microscopical examination the liver was found fatty and studded with small, round corpuscles.

Bones.—All the bones of the body were very soft, especially the ribs, which could be easily cut with a knife.

Treatment has effected but little in these cases, and this case followed the usual course. She received iron at first, but as vomiting came on it was discontinued. The success of the treatment by transfusion has been so slim that it was not deemed advisable to resort to it in this case, and as the patient was apparently improving, it was hoped she would continue doing so, and there would be no necessity for such interference. Unfortunately, however, she had a change for the worse. In all of Quincke's* cases the patients died, and in one case the transfusion was the cause of hemorrhages in the brain, heart, stomach, etc. Pepper† has also seen dangerous symptoms follow transfusions. Treatment by phosphorus has been quite as unsuccessful. Bradbury‡ reports an interesting case in which phosphorus had been used, but to no effect. Pye Smith‖ relates a case in which improvement had been slight under the use of phosphorus.

Now, then, comes the question of the etiology of the disease. Within a few years the etiology of diseases has been traced back until they have been placed, probably, in their proper category, and until many of them have been classed under disorders of the nervous system.

Basedow's disease was considered by Basedow himself, Hiffelsheim, and Beau to be due to a modification of the blood analogous to chlorosis; but recently the theory is that which attributes Basedow's disease to an affection of the sympathetic system (Rosenthal). Addison's disease, generally supposed to be a chronic inflammation of the suprarenal capsules and not connected with the nervous system, is now gradually being considered as a disease of the latter. According to Risel, Addison's disease consists of a paralysis of the abdominal sympathetic plexuses from a propagation of the inflammatory processes developed in the suprarenal capsules. This gives rise to general anæmia on account of the stasis of blood in the abdominal viscera (Rosenthal). And now even chlorosis is regarded as a disease due to a disorder of the nervous system.

Why, then, is not progressive pernicious anæmia a disease of the nervous system? We are inclined to think it is, and of the vaso-motor system. It consists of an irritation of the vaso motor nerves, causing contraction of the arterial muscles. It may occur directly or indirectly. Directly, from the action of cold upon the arterial muscles, causing contraction, with paleness of the skin, etc. Indirectly, as from inflammation of the spleen. In the majority of cases of progressive pernicious anæmia reported, whether or not the patient had suffered from malarial poisoning, there had been hypertrophy of the spleen. This hypertrophy may be due to a retention of the cellular elements, and not to their multiplication, as are enlarged spleens from malaria due. As the red globules are below the normal proportion in this disease, we presuppose the destruction of the same. But whether this destruction takes place in the spleen or liver, or when malaria has poisoned the system it is due to its pernicious influence on the red blood-corpuscles, it is of a secondary nature. Or, again, the irritation may be transmitted from the centre of vaso-motor nerves.* Rudge says the centre of vaso-motor nerves lies in the cerebral peduncles; others say in the cerebrum, higher up; still others, in the medulla oblongata, and that they have special nerve-centres (Wagner). Goltz and Heubelt say, besides the medulla oblongata the spinal cord is also an independent central organ for vaso-motor nerves. However, leaving the situation of the vaso-motor nerve-centres open for discussion, it will be shown farther on that this irritation may be transmitted. Brown-Séquard first demonstrated that, by electric irritation of the sympathetic, conditions opposite to those caused by its division resulted, but more slowly—namely, contraction of the vessels, paleness and lowering of the temperature of the part. According to Dubois-Reymond (*Arch. f. Anat., u. s. w.* 1860, *p.* 461), those cases of migraine in which the affected half of the head is pale, etc., depends upon a tetanus of the muscles of the part. It is a fact that vascular spasm will produce paleness, and if long continued will give rise to anæmia. Trousseau† mentions a case of a young girl who, in the enjoyment of very good, health received a sudden fright during the night. The next morning her health was affected, and four days later she came into his wards with all the signs of confirmed chlorosis. Also a girl who, consequent upon, and some days after, a violent mental emotion, became chlorotic. Then he goes on to say: "These cases show you how little importance can be attached to the primary state of the blood; and how important it is to place anæmia among the secondary causes of chlorosis. Dr. Barlow‡ mentions a case of intense anæmia in a child seven years of age, directly following a severe fright.

The indications of a nervous affection in this disease are: frequent cephalalgia, vertigo, syncope, neuralgic pains, dyspepsia, vomiting, diarrhœa, mental depression, muscular weakness, pallor of skin, and reduction of temperature (although there is a rise in some cases). The symptoms of anæmia are paleness, lower temperature, and diminished function of the affected parts (Wagner). The pallor

* Volkman's Sammlong klinischer Vortrage, No. 100.

† Amer. Med. Jour., Oct., 1875.

‡ Brit. Med. Jour., No. 816, p. 241.

‖ Virchow's Archiv, LXV.

* Med. Cirbl., 1864, No. 25.

† Clinical Medicine.

‡ Brit. Med. Jour., 1876.

and all disorders of innervation can be readily explained as due to the arteiral spasm, caused by an irritation of the vaso-motor nerves. It is a well-known physiological fact that powerful irritation of the centre of vascular innervation produces contraction of the cerebral arterics, and the irritation may be propagated to the neighboring centres in the medulla oblongata. These are vaso-motor disturbances.

Broadbent * says pernicious anæmia might be described as Addison's disease, without the disease of the suprarenal capsules, and without the bronzing of the skin. If, then, we accept the theory of Risel, that it is a paralysis of the abdominal sympathetic plexuses from a propagation of the inflammatory processes developed in the suprarenal capsules, it only serves to corroborate our belief that it is a disease of the vaso-motor system. Quincke says that we have not to do with a single diseased state, but pernicious anæmia, like anæmia in general, is the product of the most different morbid processes, and represents, as it were, the highest development, the ultimate stage of anæmia.

Certainly, this anæmia cannot be explained by the usual causes—loss of blood and insufficient nourishment. For in but a few of the cases reported have the patients been subject to losses of blood, or have they been on a "starvation diet" (the apparent plumpness of the patients being averse to this).

We think as Purser † does, that to consider pernicious anæmia as if the whole change resided in the blood, is absurd. "The blood does not make itself, it does not consume itself, and it is to the organs of its formation and consumption," or to its nerves, "that we must look to as the source of its changes." The fatty condition of the body and organs may be explained as due to deficient combustion from imperfect oxygenation, from a lack of red blood-corpuscles. And it is well known that chlorotic girls often become quite fat.

ON GIACOMINI'S METHOD OF PRESERVING THE BRAIN.

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A method by which brains could be permanently preserved as dry preparations has long been a desideratum to anatomists and physiologists. I should like, therefore, to call the attention of those interested in the subject to the following method devised by Prof. Giacomini, of Turin, and communicated to the Academy of Medicine in that city in 1878. A summary of his article, by Prof. Turner, appeared in the *Journal of Anatomy and Physiology* for January, 1879. I was struck with the description, and though somewhat sceptical, determined to give the process a trial. The results have greatly exceeded my expectations, and I am able to state that by this method the brain can be permanently prepared in the dry condition, retaining the external form and general characters in such a way that it appears like a beautiful wax model. I exhibited a set of brains thus prepared, at the Saratoga meeting of the American Association for the Advancement of Science, and from the numerous letters which I have received from various quarters respecting the process, I feel sure that its publication in full will be satisfactory to many.

As the *Journal of Anatomy and Physiology* has a very limited circulation on this continent, I will give Prof. Turner's condensation in full:

"In the first stage, the fresh organ, still enveloped in its membranes, is immersed in a saturated solution of zinc chloride. In this it floats with a little of its surface above the fluid; and so, while its form is not interfered with by pressure, it must be turned two or three times a day, in order that all parts may be uniformly acted on. If the subject has been dead for some time, 600 grammes of the solution may be injected through the carotids under slight pressure, so as to give a firmness to the somewhat softened brain before its removal. After forty-eight hours the surface is hard enough to have the membranes removed. Let this be done without taking the organ out of the solution, or, if it be taken out, let it be put into water immediately, so that it may the less lose its form by pressure. After having been cleaned, let it remain in the solution till, as the hardening proceeds, it begins to sink no longer, and then remove it. At this stage it will be firm, slightly diminished in volume, the fissures a little opened, and the color whitish, unless the membranes have been left on too long, in which case the course of the large vessels will be stained of a rusty color from the blood-pigment. Now it is immersed in alcohol of commerce for not less than ten or twelve days, but it may be for an indefinite period; here it sinks and must be often turned to avoid deformity by pressure on the bottom of the vessel, and it is well to renew the spirit two or three times—the oftener the sooner the process is required to be finished. After the alcohol, the consistence is greater, the size a little less, and the convolutions somewhat closer together.

"Now comes the second stage. Let the organ be immersed in glycerine of commerce, with one per cent. of carbolic acid added. When first put in it floats with some of its upper surface above the surface of the glycerine; but, gradually becoming heavier as the alcohol evaporates and glycerine is imbibed, it sinks deeper and deeper until it is just level with the liquid; then it is taken out. In this part of the process neither surface, color, consistence, nor volume are altered, but it becomes heavier. A brain should gain from 150 to 200 grammes in from twenty to thirty days, according to its volume. Now it is set aside for several days until the surface is dry, and then cover it with several layers of gum-elastic varnish, or, better still, marine glue diluted with a little alcohol. This varnish is not to prevent evaporation—the glycerine does that—but is simply a protection against the dust and injury."

I have followed the details of the process very closely, and have nothing essential to suggest in alteration. Less than a saturated zinc solution will suffice. I have some well-prepared specimens in solution of the same strength as Burnett's fluid 50 per cent. The ordinary alcohol, or methylated spirit, as we use it in Canada, will serve. In these fluids the organ remains of a natural grayish white color, but in the glycerine it becomes of a light brownish yellow. The purer the glycerine the less alteration in color.

In varnishing I have used the ordinary crystal varnish, which answers the purpose very well, and leaves a nice light surface. A solution of gum caoutchone in chloroform makes a good coating, but is darker.

The most troublesome part of the process is the removal of the membranes. From the lateral parts of the hemispheres they strip off readily enough; but on the occipital lobes and cerebellum the pia mater is thin, and after two days' immersion is very adherent,

* Practitioner, January, 1875.
† Dub. Med. Jour., November, 1877.

so that it requires great care to remove it without tearing the brain-substance. In the preparation of a base to show the superficial origin of the nerves, great care is needed, and the dissection is very tedious. In several instances in which the brains were very firm, I removed the membranes before placing them in the zinc solution, and found this answer equally well. Brains taken from patients dead of chronic wasting diseases, or from old persons, make the best preparations, as the fissures and sulci are wide, and the convolutions very distinct.

With the convolutions on one side labelled, and Ferrier's centres mapped out with red paint on the other, a brain prepared in this way makes a beautiful museum specimen, and is, moreover, exceedingly useful for demonstration in anatomical, physiological, and even medical lectures. Spots of cortical softening or hemorrhage on the surface can be very well shown, the lesion preserved, and its position accurately defined. Sections can be treated in this way, but when dried and varnished the contrast between the gray and white substance is not very marked. Still, vertical sections, made after Pitrè's method, retain their characters sufficiently to show the relation of the basal ganglia and the ventricles, and they are much more convenient to handle than moist preparations. The process answers very well for mammalian brains; not quite so satisfactorily, Prof. Ramsay Wright, of Toronto University, informs me, for those of invertebrates.

Progress of Medical Science.

Benzoate of Sodium and Benzoate of Magnesium in Tuberculosis.—Prof. Klebs, writing to the *Allg. Wiener med. Zeit.*, No. 1, 1880, gives the results of a series of investigations, with the following conclusions: tuberculous miliary eruptions can be made to proceed to self-limitation or retrogression by the internal administration of the benzoates, particularly the benzoate of magnesia.

In apex infiltrations, unless of very long standing, even when accompanied by hectic fever and preceded by hæmoptysis, the exclusive application of soda benzoates by inhalation (grm. 10 a day), or by insufflation (grm. 2-3 per day), together with the internal administration of benzoate of magnesia, accomplishes a permanent lowering of temperature, cessation of catarrhal manifestations, and increase of the bodily weight. The latter may be considerable. In one case a gain of ten pounds in three weeks was observed.

In some cases, however similar in character, no benefit is obtained by this treatment. In such cases there is destruction of lung-tissue, probably. Yet, even in these cases, large doses of benzoate of magnesia sometimes successfully combat the fever, where comparative trials with salicylic acid have shown the merely temporary effects of this drug.

Klebs also recommends the hypodermic injection of pilocarpine (one-sixth gr.) in place of the expectorants still in vogue. He also favorably mentions the inhalation of guaiacum in decoction. Both methods are applicable to cases of persistent catarrh due to cavities. The cavities once thoroughly cleansed, the sputa no longer containing micrococci, improvement generally lasts. Mild febrile and catarrhal attacks, which are apt to appear, may be similarly treated, the patients not losing in body weight.

There remain cases which even this method will fail to affect in a favorable manner. Finally, the author calls attention to the noteworthy fact of the entire absence of amyloid degenerations observed in twelve fatal cases. These cases had been marked by profuse discharges and advanced emaciation.

In conclusion, Klebs remarks that he can lay no claim to the discovery of an agent that will cure tuberculosis; but in numerous instances it will be found that by his method the progress of the disease is checked, and an ultimate cure may be established.—*Allg. med. Cent.-Zeit.*, Jan. 10, 1880.

Laryngoscopic and Rhinoscopic Examinations in Children.—In a recent article on this subject, Dr. Schrotter, of Vienna, urges the universal adoption of instrumental examinations for the accurate diagnosis of the various nasal, pharyngeal, laryngeal, and tracheal affections of childhood. Very erroneous views of the difficulty of manipulating children for this purpose are still entertained. With the ordinary precautions, equally necessary for such local inspection in adults, a truly valuable aid to diagnosis is obtained. He has performed laryngoscopy in a child six months old, and was thus enabled to positively assert the absence of a supposed croupous laryngitis. He has also experienced no difficulty in performing intra-laryngeal operations in children, and cites illustrative cases.—*Monatsch. fur Ohrenheilkunde*, Nov., 1879, No. 11.

On some Cases of abnormally High Temperature.—To refute the idea that the occurrence of a very high temperature is not always indicative of grave consequences which may follow, Dr. Donkin reports eight cases occurring in hospital practice, in which there was a very marked increase in the degree of heat. The following is selected as being the most interesting: A nurse, aged nineteen, at the end of an attack of enteric fever, had a rise in her temperature one afternoon to 105°, and in the evening of the same day, at half-past eight, to 109.4°. After remaining in a bath at 90°, which was gradually cooled down to 60°, the temperature in the mouth, at the end of ten minutes, was found to be 97.6°. After this time all typhoid symptoms disappeared, but there were remarkable fluctuations of temperature for several months after. On Jan. 25, 1878, the temperature at midnight was 110°; soon after it fell to 109°, as registered by another thermometer. When the first thermometer was again used, it indicated 108.4°. A third thermometer in the mouth showed 108°, but at 12.30 only 98°. After this it remained at 99°. The skin, at this time, was not hot to the touch. On another occasion, when the temperature was high, the number of respirations was increased, and at least on one occasion the skin was hot to the touch. D. claims that these increases in temperature were evidently of short duration, because it was difficult to obtain a high registration on two successive occasions. At one time, the temperature in the right axilla was 107.2°, in the left 107.8°, the pulse 192, the respiration 32, and the skin felt hot when the hand was applied to the surface. Five minutes afterward the temperature in the right axilla was 98.6°, in the mouth 98.8°, and the respiration sank to 24. The highest temperature recorded at any time was 111.6°. These high temperatures were "generally unaccompanied by any discoverable constitutional symptom other than a feeling of 'flushing,' or 'rushes of heat,' described by the patient." She suffered from no organic disease, but had a retroflexion of the uterus and displacement of the left ovary.

In all the cases pain was a prominent symptom. Seven out of the eight cases reported occurred in females. All the cases ended in recovery. D. believes, as far as his observation goes, that these cases are of nervous origin.—*Brit. Med. Jour.*, Dec. 20, 1879.

On the Relative Paralyzing Action of Atropia and Pilocarpine on the Heart.—After a series of experiments with atropia and pilocarpine, Drs. Ringer and Morshead, of London, arrive at the following conclusions with reference to the above drugs: Sulphate of atropia applied locally is almost as powerful a paralyzer of the heart as pilocarpine. Atropia either paralyzes the excito-motory cardiac apparatus, or the cardiac muscle, or both. Extract of muscaria paralyzes the cardiac muscular substance, and probably the excito-motory apparatus. Atropia antagonizes, in part at least, the action of muscarin, by possessing for the cardiac structures a stronger affinity for muscarin, whereby atropia, a cardiac paralyzer, replaces muscarin, which has the same property, but in a greater degree. When this takes place, the weaker paralyzing effect of atropia is substituted for the stronger paralyzing power of muscarin, so that a heart weakened or arrested by muscarin becomes strengthened, or commences beating again on the addition of atropia. Pilocarpine, which weakens or arrests the heart's action, also antagonizes the action of muscarin, and still more powerfully paralyzes the heart. It is suggested by Ringer and Morshead that this antagonism is due to the fact of pilocarpine displacing muscarin, the former having a stronger affinity for the excito-motory apparatus and muscular substance, its weaker paralyzing action being substituted for that of muscarin. Atropia, having a stronger chemical affinity for the structures of the inhibitory apparatus, displaces muscarin, and substitutes its paralyzing action for the stimulant action of muscarin. Pilocarpine causes the heart to cease to beat in a much shorter time than atropia followed by muscarin.—*The Journal of Physiology*, Dec., 1879.

Czerny's Operation for the Radical Cure of Hernia.—Of the many operations advocated for the radical cure of hernia, none have been proposed, thus far, that are free from objection of one kind or other. The advantages claimed by Czerny for the operation adopted by him are, that the results are more certain, as the fibrous columns of the external ring are drawn close together, and an exact application of the sutures can be made, causing a narrowing of the internal aperture. The operation is as follows: An incision is made along the whole length of the hernia. If intestinal and reducible, the contents of the sac are returned to the cavity; if irreducible and intestinal, they are dissected loose and reduced, the sac being ligatured at the neck and cut off. When the contents are omental, they are included in the ligature with the sac. The fibrous columns of the external rings are drawn together by an uninterrupted suture of strong carbolized catgut. After the insertion of a drainage-tube, the wound is closed with sutures and dressed antiseptically. This mode of procedure has been adopted in nine cases of inguinal hernia, without the occurrence of peritonitis. The first recorded case of the operation in this country was in a man who had an irreducible hernia, that rendered him unable to pursue his occupation, as he could not wear a truss. The result, by Dr. E. W. Lee, was successful.—*Chicago Medical Gazette*, Jan. 20, 1880.

The Prevailing Epidemic of Measles in West London.—As the result of a personal analysis of twelve cases of measles, Dr. W. B. Cheadle arrives at the following conclusions: No immunity is afforded by a previous attack of the disease. Nine of the patients had the disease previously, eight within a year of the first appearance. The coryza was very slight, as also the sneezing, the latter sometimes being absent. The laryngeal catarrh was severe, and the cough very violent and incessant at the height of the disease, so much so as to prevent sleep or any kind of rest for a number of hours. Another prominent feature, commencing with the first symptoms and lasting until the decline of the eruption, was the vomiting, said to be caused by the measles poison, and not by the cough. The eruption was profuse, more raised and papular than is usually the case, and confluent in patches on the face and extremities. Severe earache supervened on the fourth or fifth day after the eruption first made its appearance; it lasted several hours, and disappeared without discharge or other sign of otitis. As to the recurrence of the disease in the same individual a second time, C. asks whether there may not be two distinct diseases (apart from Rötheln), each of which confers immunity from a second attack of the same variety, while affording no protection against the other.—*British Medical Journal*, Dec. 20, 1879.

Long-continued Ileus cured by Large Injections of Ice-water.—Dr. Kormann, of Coburg, reports the following case: A woman, forty-five years of age, was seized suddenly with violent pain in the right inguinal region, accompanied by continued vomiting and constipation; examination revealed increased resistance and dulness in the ileo-cæcal region. The bowels were moved, at first, by injections, and the pain was controlled by hypodermics of morphine, but the vomiting and the tenderness in the iliac region persisted. On the sixth day, after a large dose of calomel and jalap, a distinct sausage-shaped tumor formed in the right side of the abdomen over the site of the cæcum, and the patient fell into a state of collapse. The bowels had not moved for four days, and a soft, doughy mass, consisting probably of retained fæces, could be felt above the tumor. Large injections of warm water were given repeatedly without result, and on the tenth day, when the patient's condition was most desperate, Dr. Kormann decided to try ice-water. He accordingly injected about two quarts of ice-water into the gut, and then manipulated the tumor gently with his hand, and while doing so felt it disappear with a distinct gurgling noise. The patient at once felt relieved from the intense pain that she had been suffering, and two hours later she had a large, soft passage from the bowels. The right side of the abdomen remained tender for a few days, but the patient rapidly recovered, and was able to leave the hospital at the end of two weeks. The passages were examined for pieces of necrosed intestine, but none could be found. Dr. Kormann thinks that this case began with a slight intussusception of the ileum into the cæcum, the lumen of the gut still remaining partially open, and that the purgative forced down a larger portion of the ileum, producing complete obstruction. The case is notable both for the duration of the intussusception and the facility with which it was relieved by the ice-water injection.—*Berliner klin. Wochen.*, No. 48, 1879.

The Spread of Small-pox.—In the week ending March 6th, there were 5 deaths from small pox in Philadelphia, 2 in Worcester, and 1 in Washington.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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PROFESSIONAL INTERFERENCE AND THE ABUSE OF MEDICAL CHARITIES.

THE more the subject is discussed the more apparent does it become that there is a great deal of interference on the part of the conductors of college and other clinics with the patients of other practitioners. Why this should be so it is difficult to understand, except upon the supposition that clinical material must be obtained at all hazards. There is no doubting the fact that there is a great demand in our colleges and hospitals for interesting cases to bring "before the class." As the value of the clinic itself, and the consequent reputation of the lecturer, depend upon the number of such cases, it is very easy to yield to the temptation of asking of the patient as few questions as possible concerning previous medical attendance. It is bad enough when a patient who can pay another practitioner strays into a dispensary or college clinic, and gets advice for nothing; but still worse when the same patient is already under the care of a physician as a private case. In the latter instance there is such a temptation to thoroughly analyze the symptoms and make an acceptable diagnosis that the attending physician always appears, comparatively speaking, at a disadvantage. The patient generally goes away with the impression that no one could possibly understand his case better than the professor. Dr. White or Dr. Jones, who previously attended him, had no such instruments, never thought of sounding him so thoroughly, and, in fact, did not ask one-third the number of questions. And besides, did not the professor tell the young doctors that the disease was not in his kidneys, but in his heart! It does not appear that the professor himself may be mistaken, and the family physician may be right. This being assumed by the patient, it is easy to understand how the slightest hint as to the nature of the disease before the patient may be of the greatest damage to the attending physician. And yet this appears to be so little considered by the lecturers, that they practically consider every case that strays into their clinics as their own professional property.

It is not fair, however, to lay all the blame upon the lecturer or the hospital attendant, as much of the responsibility of selecting the proper and worthy cases falls upon his clinical assistants who first examine them. If proper care was exercised by these gentlemen, there would be no need for the number of complaints which reach us regarding the treatment of patients of other practitioners. In the hurry of sorting the cases, of getting a record of the name, age, and general symptoms of the patient, the possibility of being already under the care of a practitioner is seldom thought of, and the interesting case is passed on with the rest.

When the treatment in such a case appears to have been unsuccessful, and the result a bad one, it is easy to understand what an excellent text it makes for some general remarks on the want of skill of ordinary practitioners. After the battle has been lost, it is very easy for one who was not present, to look over the field and say what ought to have been done. The patient is generally on the side of the head-doctor, and not only is the regular attendant dismissed, but frequently a suit for malpractice is invited. It may be granted that these are extreme cases, and that they seldom occur. But that they should ever happen at all shows that the system of clinical teaching and the method of managing the patients that apply, need some very radical reforms.

The fact that advice is given so freely is not lost on the people. The patient who has had a free operation at the college or hospital advertises the institution and the operator to others needing similar services, and so the abuse continues. Hence it is that the hospitals and colleges are apt to absorb all the interesting cases, and the regular attendants suffer not only in the loss of experience and of the chances of reputation which these cases may give them, but of the fees which they could likewise collect. From all parts of the vicinity of New York we hear the complaint that no operations, however trivial, can be performed by the rural surgeons. This is not because there are not good operators and competent men in those districts, but that the patients know they can confer a favor on hospitals and colleges by offering themselves as subjects for free operation. Can such patients be blamed for such a preference, when, besides having the operation performed for nothing, their board bill, while under treatment, is paid by the metropolitan attendant! All this gives the country practitioner, who wishes to gain a local reputation, a very poor chance.

But to return to the pure etiquette of this question of professional interference. It is clearly the duty of every hospital attendant or college professor to in-

form himself beforehand whether or no he is giving advice or treatment to the patient of another practitioner without the knowledge or consent of the latter. He owes this to his fellow-practitioners, not only by virtue of his public position, but because of the known liability of patients of other physicians applying to his clinic for free advice. When he discovers that a patient has strayed from the family attendant it is just as much his duty to decline to give his advice as if the solicitation made by one who came under the same circumstances to his private office.

A NATIONAL VETERINARY BUREAU.

THE current statement that unless measures are taken to suppress the lung-plague among cattle, our country is liable at almost any time to lose $60,000,000 annually from that disease, has justly excited much attention. The statement is an authentic one, and facts in support of it are now being laid before Congress, with a request for national legislation upon the matter.

We suffer a great annual loss already from the various contagious diseases among domestic animals, notably from hog-cholera, and we are in constant danger of their wider spread. The lung-plague, however, seems to claim more especial attention, for it affects the live stock which we export. Its prevalence last year caused an embargo to be put upon the animals in English ports, and the disease is liable at any time, by a sudden increase, to disturb business relations very seriously.

The lung-plague now is confined to the east. It does not exist as an epidemic west of the Alleghanies. Most of our live-stock comes from the west, and is driven into the stock-yards and stables of the eastern cities, where the animals become liable to infection before they are exported or otherwise disposed of. The damage, therefore, is now done in the east, but the great danger lies in the fact that at any time the contagion may be carried west and get among the herds on the plains. Once there, the difficulty of eradicating it would be almost insurmountable, and the loss it would occasion among our 37,000,000 head of cattle would, of course, be immense.

Since the danger is largely to western cattle, while the disease is in the east, it is claimed that State interference will not be vigorous enough to deal with the matter properly. A national veterinary bureau is therefore recommended. It is proposed that such a bureau have power to make scientific investigations of the disease, and collect facts concerning the same. It should also have power to co-operate with the State authorities and to quarantine or kill infected animals wherever found, awarding compensation to the owners. Such a veterinary bureau would be modelled largely after the National Board of Health, but would make its reports to a department instead of to the President.

There are certainly great advantages in a scheme of this kind. It has already received the indorsement of the Secretary of the Treasury, and has been laid by him before Congress.

We foresee, on the other hand, that such a bureau would soon have very great power placed in its hands. The Texas fever, trichinosis, and hog-cholera, for instance, are diseases affecting widespread interests and enormous capital. Now, the work of investigating all these diseases, and of using preventive measures upon them, would presumably fall largely into the hands of veterinary surgeons. Veterinary science is rapidly advancing, and has already some very able representatives; nevertheless, as a whole, it is still in a crude state, and the great mass of those who follow it practically are without any thorough education, either scientific or otherwise. There is but one legally chartered veterinary college, at least in this State, and that has hardly more than a nominal existence. The other schools, although some of them are excellent ones, are really only licensing bodies, and their diplomas and professorships are such by courtesy, not by law. In addition to this, a large per cent. of veterinary doctors are self-educated, and totally without scientific training. It would be well, therefore, to act carefully in a matter which may throw much responsibility and authority upon these men. In addition to this, we believe it a safe rule not to increase bureaus or departments, or create special commissions when there is already executive machinery enough for the purpose which is to be attained. The Treasury Department now has bureaus which might take charge of the matter, and the Department of Agriculture has shown itself energetic and capable of doing scientific work, although it is unpopular enough as a whole. It has recently asked for a veterinary bureau.

We look at the subject in this conservative light, not because we fail to appreciate the necessity of getting rid of the lung-plague, but because there is need of caution in framing laws which might, in the end, bring only confusion between national and local authority, and reproach upon veterinary and sanitary science. The danger is not, perhaps, so very alarming and imminent. Local boards have shown that they can be very energetic and efficient.

At any rate, national legislation upon this question should be made with great care. If a national commission is eventually decided upon, it should have plenty of money and the best scientific aid that can possibly be afforded. With the proper men, money, and authority, the lung-plague could be exterminated and valuable contributions to pathological science be made. The question will be, then, whether Congress is able and ought to furnish these things.

REPORT ON THE REVISION OF THE PHARMACOPŒIA.*

The report, which, to the language of its title-page, is "a rough draft of the general principles, titles, and working formulæ proposed for the next Pharmacopœia," commends itself to the thoughtful consideration of every physician and pharmacist of progressive proclivities. Assuming that it will be favorably considered by the convention, and that it will be adopted after some amendment, we propose to discuss some of its merits and point out some of its more obvious defects.

First then, it is proposed to abandon the present division of remedies into primary and secondary classes, and to arrange all articles of the materia medica alphabetically in one list. This will probably excite some discussion, but it should be adopted.

The first convention, sixty years ago, established a primary list for "articles of decided reputation or general use," and a secondary for "those, the claims of which are of a more uncertain kind." To quote further: "In doubtful cases they have preferred to swell the subordinate rather than the primary catalogue, especially as this arrangement will be most likely to prompt further investigations into the character of the substances in question."

There can be little doubt that this plan, instead of promoting investigation, has continually checked it.

The very fact of an article being found in the secondary list has seemed sufficient to place it in contempt in the estimation of the profession generally, and this, too, whether its properties have ever been thoroughly investigated or not. Add to this the fact that the position of a drug seems often to have been decided by fashion or caprice, as evinced by the frequent changing of the same article from one to the other list, and then back again, and sufficient grounds for the proposed improvement will be apparent.

This brings us naturally to the question of dropping articles from the Pharmacopœia. As Mr. Rice says in the report, "it is necessary to be careful in this matter." We fear, however, that he and his associates have not been sufficiently careful in this respect. While we would not wish to appear in the light of champions of catnip, pennyroyal, rue, and tansy, we would still mildly protest, upon principle, against their exclusion, not simply because many less efficient articles are still retained, but because they have certain medicinal properties which have kept them in use for generations. Cataria, Hedeoma, Monarda, Ruta, and Scutellaria possess the general properties of the order Labiatæ to which they belong. The Pharmacopœia would be no better without them; it might even be improved by adding other plants from the same order, as indeed is proposed in the case of Pycnanthemum (species?), but Collinsonia Canadensis has even better claims. Coptis, Erigeron, Magnolia, Sabbatia, and Trifolium have had, and probably still have their advocates. The same remark might apply with equal justice to nearly all the drugs marked for exclusion.

In our present state of uncertainty as to the action of medicines daily employed, and especially in view of the revival of interest in therapeutics, we should be careful not to condemn any drug until its inefficiency has been fully proved. At the same time a wise discrimination should be exercised in the admission of new remedies.

One cannot fail to notice that while many vegetable remedies are marked for exclusion, the list of chemical preparations is to be largely increased. While we shall not enter into a discussion of the merits of the proposed additions, many of which are absolutely necessary, we invite attention to the apparent discrimination against medicines of vegetable origin. This may be satisfactory to pharmacists, but will it be equally so to physicians?

Another point worthy of notice is the nomenclature of vegetable remedies. While there is an evident intention to keep pace with the advances of chemistry in the nomenclature of chemical preparations, is it judicious and wise to reject altogether the claims of botanical science? It is proposed to add to the botanical names of plants the name of the author; but is this the only improvement possible or desirable? The generic name of a plant leads as naturally to its place in nature as does the basic term of a chemical compound, while the specific designation is almost as necessary as the second part of a chemical combination. Many of our vegetable remedies are now known by their generic names only, others by the specific, others by neither. There is absolutely no system whatever. This is susceptible of improvement, and should receive it. Then the student or physician could group in his mind vegetable remedies of like properties as easily as he can the preparations of iron or mercury, and not be obliged as now to exercise his memory arbitrarily. We do not advocate a sweeping change in this respect, but as much of an improvement as possible without producing confusion.

We have nothing but commendation for the proposition to abandon all measures of capacity, expressing quantities in parts by weight; and also to make tinctures, etc., of certain definite percentages of strength.

The report justly says that "there seems to be a growing demand among physicians for certain tinctures prepared from fresh plants;" and we may add that this demand is likely to become more imperative year by year. The proposition to make such tinctures officinal we consider one of the most important of the whole report, and we hope to see the plan applied to as many articles as possible.

Of the articles proposed for addition to the Phar-

* Report on the Revision of the U. S. Pharmacopœia, preliminary to the Convention of 1880, etc. Prepared and compiled by Charles Rice, Chairman of the Committee (Amer. Pharmaceutical Association).

macopœia, some will doubtless excite discussion; it is to be hoped that such discussion will be characterized by candor and not by prejudice. If Pulsatilla and Bryonia, for instance, have reasonable claims to efficiency, by all means let us have them.

To conclude our somewhat diffuse remarks, we commend the report to the careful study and thoughtful consideration of all interested in the Pharmacopœia, as in this way only can one become acquainted with its many merits and few defects. With it as a substantial basis, there is every reason to hope for a better Pharmacopœia than we have ever had.

SANITARY PROGRESS IN MEMPHIS.

A supplement to the *Bulletin of the National Board of Health* for March 13th, contains the full report of the committee charged with making a sanitary survey of Memphis. A preliminary report was made in November last, and the suggestions made at that time were subsequently adopted by the authorities of the city. The present report gives a full statement of the condition of Memphis as revealed by a house-to-house inspection.

The committee found as the result of their work the following condition of affairs: The city is insufficiently supplied with water, most of it being from wells or cisterns. Although naturally well adapted for a good system of sewerage, there has been radically none at all. The streets are not kept clean, and a great deal of garbage accumulates in them. Many of the buildings are illy constructed and ought to be destroyed. Many more need such changes as will allow of more cleanliness and better ventilation. There are very few tenement-houses, and but little overcrowding exists, but the sanitary evils are caused largely by shanties and cabins.

In nearly one-half of the buildings having cellars the sanitary condition was very bad. Privy-vaults and cisterns exist in the same basements, and often not far removed from each other; three-fourths of the five thousand cisterns and wells being so situated.

The mortality in Memphis has always been high. During three non-epidemic years, from 1875 to 1878, it was 35 per thousand; in 1879 it was 51 per thousand, two-fifths being due to yellow fever.

In regard to the present and future condition of the city, we learn that much is being done in the way of improvement. A system of sewerage and water-drainage has been adopted and is being actively introduced. It will probably be sufficiently advanced by May next to drain a large part of the city. The privy-vaults are being filled up; houses are being thoroughly cleaned and disinfected; a system of registration of disease is to be introduced, and, if a case of yellow fever appears this summer, there will be at once prompt and complete isolation. Any radical change in the method of supplying the city with water is impossible just now. Indeed, the city works under the greatest financial embarrassments. Still it is doing its very best, and it is more than probable, as a result of the work done, that yellow fever will be kept away during the coming summer. There is nowhere a more stricken place than Memphis, or one that more strongly claims our sympathy. We should be glad to see a little of the charitable enthusiasm now expending itself on the Irish turned toward our own country's unfortunates.

Reviews and Notices of Books.

THE FALLACIES OF POPULAR CLINICAL MEDICINE. By DR. J. S. WIGHT. New York: G. P. Putnam's Sons. 1880.

In an address delivered at the Long Island College Hospital, in February last, Professor Wight shows very clearly the insufficiency of the present mode of clinical teaching, and advocates giving much more practical bedside instruction. No one can take exception to the professor's views, but it is doubtful whether the ambition to graduate experienced practitioners can ever be realized.

ON SOME OF THE USES OF ANTISEPTICS IN OBSTETRICS AND GYNECOLOGY. By T. A. ASHBY, M.D.

DR. ASHBY thinks that antiseptic midwifery has won the day and is entitled to the recognition of the profession. The statistics given in regard to ovariotomy are especially strong in favor of this view.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA, at its Thirtieth Annual Session, May, 1879. Vol. XII., Part II.

THE address in surgery on the treatment of wounds, by Dr. Charles T. Hunter, forms one of the more interesting papers in this bulky volume. The subject of ligatures is discussed, and preference given to carbolized catgut. Nerve-suture and its results are referred to, and the various methods of dealing with wounds described. Dr. Hunter employs and recommends the method with dry and infrequent dressings, and free and continuous drainage. He speaks well of the open method, but declines to give any positive opinion about Listerism, except that it will probably have only a limited application.

Dr. Goodell says, in an article on spaying, that in carefully selected cases it will prove the sole means for curing many mental and physical disorders of menstrual life.

Dr. Isaac N. Klein has a paper on Juvenile Insanity. The fact that this disease is progressively affecting the younger members of society makes this article timely.

In the Address in Medicine, Dr. Andrew Fleming describes what he calls emotional fever. The name is bad, but the collection of facts under it will prove a very satisfactory one. Emotional fever should, and we hope will, take some of the weight off malaria which now takes the burden of all obscure pyrexial conditions.

One of the most elaborate papers is that by Dr. Oscar H. Allis, on the Signs and Treatment of Dislocation of the Hip.

One-half of this volume is taken up by reports of county societies. These contain some histories of cases, but their value is chiefly local.

The Society, on adjourning, elected Dr. Andrew Nebinger, President; Dr. Wm. B. Atkinson, Permanent Secretary; Dr. C. H. Chetson, Recording Secretary; and Dr. O. H. Allis, Corresponding Secretary.

TRANSACTIONS OF THE MEDICAL SOCIETY OF NEW JERSEY FOR 1879.

The address of the President, Dr. John S. Cook, upon The Problem of Life, is a much more sound and sensible treatment of that recondite subject than is generally given us by medical authors.

The contributions that follow are in the form of essays, and are all prepared with evident care. That of Dr. Peter V. P. Hewlett, on The Criminal Use of Chloroform, is particularly valuable. He discusses, among other things, the possibility of producing anæsthesia by chloroform on a sleeping person, without awakening him. This is proved to be possible in a certain per cent. of cases when the drug is expertly administered, the per cent. being larger in children. Practically, however, it must be extremely rare that anæsthesia can be produced successfully in this way.

Dr. John W. Corson, in an essay, On the Healthy Impulse of the Heart as a Valuable Sign of Comparative Safety in the Use of Anæsthetics, states that when the cardiac impulse is moderately firm and healthy, and there is no evidence of organic disease of the heart or lungs, one may feel perfectly free, with proper precautions, to use chloroform.

A very exhaustive essay by Dr. A. Clendenin is entitled Résumé of Yellow Fever.

Reports of district societies, and obituary notices, fill up the last part of the volume.

A compliment is due to the printer, who has put these transactions on excellent type and paper.

For the year 1880, Dr. Alex. W. Rogers is President; Dr. William Elmer, Jr., of Trenton, Corresponding Secretary.

Reports of Societies.

THE NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Feb. 19, 1880.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE FEMALE PERINEUM: ITS ANATOMY, PHYSIOLOGY, AND PATHOLOGY.

DR. T. GAILLARD THOMAS read a carefully prepared paper having the above title. The following is a brief abstract: The conventional description of the female perineum had been that it was the floor of the pelvis, that which fills the space extending from the inferior commissure of the vulva to the anus, and composed of skin, cellular tissue, muscles, and the mucous membrane of the vagina. Tyler Smith had spoken of the anatomy of the female perineum as having great interest, and yet gave it a description like the above. Playfair dismissed the subject, which he said was of great interest and importance, with less than eight lines, which were *three* more than given by Leischman and *four* more than written by Meadows. The French writers were usually quite full upon anatomical descriptions, yet Cazeaux dealt with it in three and a half lines. In this country, Meigs did not describe the female perineum at all, while no mention whatever had been made of it by either Bedford, Byford, or Miller. The defence for the omission might be that the obstetrician did not write upon anatomy. Turning to anatomists, Cruveilhier limited his remarks to an enumeration of the muscles and the fascia, but said nothing with regard to its function or shape or relationship to surrounding organs. Sappey had not mentioned it, and Wilson and Gray had not done better. Holden *promised* better things, yet nowhere appeared one word about the female perineum, except with relation to its blood vessels, and for those the reader had been referred to the description of the male perineum. In not one systematic work on gynecology had any mention been made of the anatomy, physiology, and pathology of the female perineum, except in the last edition of his own work, where it was described, he regretted to say, in a very incomplete and unsatisfactory manner. We owed to Dr. Savage the demonstration that the perineum in the female was a triangular, wedge-shaped body composed of fascia, areolar tissue, muscles, etc., which filled the space between the backward curve of the rectum and the forward curve of the vagina. Savage was the first to clearly demonstrate that the perineum was a triangular body and draw our attention to its significance and its uses. At this point Dr. Thomas referred to the diagram ordinarily used to illustrate the description given to the female perineum, a diagram that distorted and made a false representation of the relationship which it held to the pelvic organs, and yet it was the one employed by Gray, Wilson, and many others, and commonly copied into works which dealt with the subject in a special manner. In the living or the dead body the vagina never was an open canal; the vulva never was distorted in the manner represented unless distended by a foreign body, which separated wall from wall. The normal vagina was a collapsed canal, the anterior wall lying directly upon the posterior and sustained by it.

Attention was then directed to a figure which represented what he regarded as the true relation which the vagina, the bladder, the uterus, the rectum, and the perineum sustained to each other. In it the uterus was represented as occupying a position in the pelvis considerably lower than illustrated in the diagram by Dr. Savage, and more inclined forward, and the vagina, instead of consisting of a canal, having a simple curve from behind forward, presented a double curve: first, a decided curve from behind forward, then a lesser one downward and slightly backward; and second, a slight curve from above downward and backward. Instead of being a flat surface consisting of skin, areolar tissue, etc., filling the space between the anus and the vulva, it was seen as a perineal body, triangular-shaped, and composed of strong layers of adipose and elastic connective tissue, etc. It was a concavo-convex triangle, with its anterior side slightly convex, sustaining the superior wall of the vagina, while its posterior side, decidedly curved, supported the anterior wall of the rectum, which was supported by the base of the triangle and thus prevented from prolapsing into the vagina and out of the vulva. At its upper portion the vagina furnished a depression which received the cervix uteri, so that, to a certain extent, the uterus was sustained by a shelf-like action.

The functions of the perineal body were the following:

1. It sustained the anterior wall of the rectum, thus sustaining the equilibrium between the rectum, vagina, cervix, and body of the uterus.

2. It sustained the posterior wall of the vagina.

3. Upon the posterior vaginal wall rested the anterior, and upon that the bladder, and against the bladder the uterus—all of which, to a great degree, depended for support upon the perineal body.

4. It preserved the proper line of projection of the contents of the bladder and the rectum, and thus prevented the occurrence of tenesmus, which was a frequent cause of pelvic displacements.

Dr. Thomas then referred to what he denominated

THE KEYSTONE ACTION OF THE PERINEAL BODY.

Upon this part of his subject he dwelt at some length; first illustrating, in an exaggerated manner, by means of two diagrams, the action of the wedge-shaped body, and the results following its removal, and those were followed by two diagrams showing the effects produced, not exaggerated, by the loss of the triangular body; second, demonstrating the mechanical principles upon which the triangular body, with its base downward, could operate as a keystone in preventing a destruction of the equilibrium of the pelvic organs in a condition of health. He recognized the fact that the base of the keystone was downward, yet had reached the conclusion that upon its integrity depended the proper support of the pelvic organs.

What were the influences which most commonly disabled that wedge and rendered it inefficient and worthless, and caused the triangular body to lose its tonicity and power for giving support? 1, constitutional feebleness; 2, feebleness from prolonged overdistention; 3, subinvolution; 4, senile atrophy; 5, laceration. Dr. Thomas then spoke of the manner in which each of these causes operated.

Laceration was a splitting of the perineal body, and had been divided into three degrees: first degree, when split for only a short distance; second degree, when split to its centre; and third degree, when it was divided entirely through, and at once removed the keystone from the arch. It did not take away support from the uterus, but it altered the shape and removed support from the vagina, and the secondary effect was direct traction upon the uterus. The relation which the perineal body sustained to obstetrics was next mentioned, and the fact stated that gynecological practice originated largely in the lying-in chamber, and rupture of the perineum, furnished one of the most fruitful sources for the introduction of septic material, for the development of engorgements, rectal and vesical, prolapse, etc., to be found in obstetrics.

The doctrine that, so long as the rupture did not involve the anal sphincter it was a matter of but little moment, he regarded as very dangerous. Suppose it was torn down to the sphincter muscle, the immediate consequence was an exposure of an extensive raw surface, indisposed to heal by first intention, and quite near an abundance of blood-vessels, chains of lymphatic glands, and over that surface semi-putrid animal fluid must steadily pass for two or three weeks. It was a wonder that so many cases escaped septicæmia, when there was so perfect an arrangement favorable for the absorption of poisonous material. If all the cases of lacerated perineum were followed up closely from the lying-in chamber, the list of evils found would be a long one; some occurring at once, and others developing even at a very remote period. The evils enumerated were the following: septicæmia; anterior and posterior uterine displacements, prolapsus, cystocele, rectocele, chronic cystitis, chronic urethritis, uterine engorgement and hyperplasia, subinvolution of the uterus and vagina, destruction of the power of the uterine ligament, development of a tendency to abortion, impaired sexual gratification, and neuralgia affecting the site of rupture.

As a rule, *immediate closure* of the wound, both as an immediate preventive of septicæmia, and a remote preventive of all the evils just enumerated, was advisable. If it failed, no harm was done; but if it succeeded, great benefit followed.

But the question might be asked, if, in the non-puerperal state, the perineum be cut completely down to the sphincter muscle, will prolapse of the vaginal and rectal wall necessarily occur? No, not necessarily, but probably in time it would. Not in all cases of laceration of the perineum did prolapse occur; for, despite the laceration, involution might go on and the parts remain in tolerably good position, though they lacked the support of the perineal body; but such an occurrence was the exception and not the rule. The paper being before the Academy,

Dr. A. J. C. Skene remarked that he fully appreciated the value of the paper, and felt confident that all present would become better practitioners, both of obstetrics and surgery, for having listened to it. There was one point with reference to pathology to which he called attention, and that was the effect upon the muscular tissue especially, which took place after laceration had existed for a long time and was produced by atrophy and fatty degeneration, thus rendering complete restoration impossible. The perineum could be restored as far as possible in certain cases of long standing, and yet it was almost useless. He therefore raised the question: how long after laceration has occurred can the operation be delayed, and yet, when it is done, result in giving the woman a serviceable perineum? He thought that after a time all the muscles connected with the perineum underwent fatty degeneration and atrophy, and became useless for all future purposes.

Dr. H. J. Garrigues remarked, that he had just been studying the subject of Dr. Thomas's paper, and had therefore listened to it with very great interest. In preparing an article for the *American Journal of Obstetrics*, on "The Treatment of the Perineum," he had had occasion to study the anatomy of the part, and he would therefore remark upon points where his observation did not coincide with that made by Dr. Thomas. In the first place, it was a mistake to say that Sappey had not given the anatomy of the female perineum. True, it was not found in his description of the genital organs; but a full and exceedingly good description could be found in connection with his description of the rectum. In the second place, the expression perineal body was due to Savage, but Savage had himself stated that the excellent word was suggested to him by reading a description of this part written by the German anatomist Henle. Again, as represented correctly in one of Dr. Thomas's diagrams, the vagina was naturally a closed canal, but the illustrating acuteness of the angle between the uterine and the vaginal canal, he thought, was exaggerated. If so acute as indicated, he thought the introduction of a sound in comparatively healthy women would be more difficult than it was. He also thought that while Dr. Thomas was correct in placing the uterus lower down than illustrated in the old diagram of Gray and others, he had exaggerated it somewhat, and placed it a little too low. It had also appeared to him that the perineal body was not so triangular as represented, but

that it was more rounded, the lower part of the body corresponding to the bulbous extremity, and the other to the head of an alembic.

Again, the superior sphincter of the rectum was not illustrated in Dr Thomas's diagram, and the anus was represented as opening directly downward, while in reality it pointed more backward, and in the upright position it was about as much backward as downward, due to the fact that the rectum made a decided curve backward, thus influencing the shape of the perineal body, and contributing to give to it the alembic-shaped curve.

With reference to the *perineal body acting as a keystone*, he thought it true that as soon as an arch was suspended, the keystone lost all its power as a keystone. In the case of the perineal body, the base of the keystone was not only placed downward, but all the pressure came upon the point of the wedge.

Dr. Garrigues then referred to masturbation in young girls as a possible cause of relaxed perineum. He regarded the question as settled in Europe, and, for the most part, in this country, that it was the duty of the obstetrician to close a ruptured perineum as soon as possible. It was, at least, in the highest degree desirable, and that because it was so extremely rare that union did not take place when the torn surfaces were at once united. Out of *thirty* cases in which no operation was performed, there was only a single *one* in which union occurred to such an extent that the perineal body was entirely restored; in the *twenty-nine* there was but slight union.

Again, two-thirds of all the gynecological cases had their origin in laceration of either the cervix or the perineum. For the reasons, then, that it did not unite properly without some special closure of the parts, and that so large a proportion of gynecological cases had their origin in such an injury, the edges of these lacerated wounds should be united as soon as possible.

With reference to the manner in which a ruptured perineum should be united, it was, as a general rule, stated that it should be done by sutures. He thought stitches were not necessary, probably, in the majority of cases. Of course they were necessary in cases of complete rupture. If the laceration extended very far in the direction of the anus, and stretched up high in the vagina, sutures were necessary. If the rent extended high up, even though the skin was not torn at all, stitches must be used. On the other hand, if the laceration did not extend high up, or showed in the perineum for perhaps half its extent, he did not find it necessary to do more than unite the edges of the wound by means of serrestines, first brought to the attention of the profession in this country by Dr. Matthew D. Mann.

As usually made, they were defective in two respects: 1. The legs were too short; they did not catch deep enough; and 2. The legs were much too strong, hence liable to cut through. Those made for him by Tiemann & Co. had long legs with small claws, and the first one he usually attached about one-third of an inch in front of the bottom of the rent, the woman lying on her left side, and others at intervals of about half an inch the whole length of the laceration. A slight suppuration was usually noticed about the teeth near the fourth day, but that soon disappeared, union was rapidly secured, and when complete the serrestines were removed.

Dr. H. T. Hanks remarked, regarding the introduction of the sound, that when the woman was placed in the supine position, and Cusco's or Ferguson's speculum, or even when Sims's speculum was used, we were inclined to retrovert the uterus somewhat, thus rendering the introduction of the sound more easy than would seem possible from an inspection of a diagram. The subject was an important one, and if, by studying the anatomy of the body, we could learn of its necessities, in order to have a healthy condition of its parts, we should study obstetrics more thoroughly, and thereby accomplish something towards removing many of the evils to which woman was liable. He then referred to a case in which a rupture of the perineum existed four years before it was operated upon, and after the operation was performed it was determined that the parts could never be restored to their normal proportions.

The President remarked that he felt great delicacy in speaking upon the subject before the Academy, for no one more than himself highly appreciated the brilliant character of the paper. From the fact that the paper would attract great attention throughout the country, and throughout the obstetric world, it seemed to him that the doctrine brought forward should be subjected to some criticism before being accepted, and he felt less hesitation in offering some suggestions, from the fact of the well-known relation existing between the writer of the paper and himself, and doubtless whatever he might say would be answered most effectively. It, however, seemed due to science if there were any defects that they should be pointed out, and so give the author of the paper an opportunity to defend himself, and to correct those defects, if it should be proved that they existed. He would then say: *first*, that in medicine the mistake was often made, as it seemed to him, of assuming a certain fixed standard, an ideal theory for premises, and then basing all argument upon the ground that that theory was consequent, and therefore the conclusions must be true. Now, concerning an anatomical description of the female perineum and its relations to the pelvic organs, he begged leave to say that it was assumed that it had a relation with a certain ideal standard which was fixed, but which did not find its existence in nature. The relation of those parts was constantly changed—changed as the bladder and rectum were full or empty—changed as the patient was in the erect or the recumbent position, and that was especially true in connection with utero-gestation. In utero-gestation the relation of all pelvic organs was changed; the uterus was increased in weight, there was congestion of the tissues; as the uterus became increased in size it gradually changed its position. Still further, the relation of the parts was entirely changed again, during the period of parturition, especially with regard to the condition of the muscular tissue, etc. Might not those changes, in a certain degree, vary the basis upon which the arguments were made that led to the conclusions reached in the paper? That was thrown out as one of the points which should be investigated before accepting the conclusions that had been reached.

Another point, to which reference has already been made, was the necessity of an immediate operation to effect union when laceration of the perineum had taken place. He was well aware that the doctrine now taught by the most brilliant gynecologists and the most eminent obstetricians, was that it was our duty to at once operate as soon as laceration to any considerable extent has taken place in the perineum. While Dr. Garrigues had qualified the general teaching by saying it was almost universal in this coun-

try, it seemed to him that the doctrine should not be accepted, even so far as related to the simple application of serresfines, without carefully weighing all the attending circumstances. He admitted that, in a certain class of cases where the general conditions were favorable, it was proper to effect union at once, either by the use of sutures or serresfines. The latter Chassaignac introduced in 1843, and he himself had used them more than twenty-five years ago in Bellevue Hospital. The point which he made was, that the simple fact of laceration should not alone decide whether it was proper to operate at once, or wait and allow spontaneous union to take place, and, if it failed, then resort to the secondary operation. In several instances he had seen dangerous symptoms arise from the early operation, though resorted to with great care and prudence. In one case where extensive laceration took place, the patient went through the labor without great exhaustion or severe symptoms, and the physician at once performed the operation, closing the wound by sutures. He had hardly completed it, when the patient had a profuse secondary hemorrhage. In another case of extensive laceration of the perineum, the conditions were such that he argued against the opinion of two physicians, and in favor of deferring the operation until it was determined whether or not spontaneous union would occur. In that case spontaneous union did occur, and the woman had a good perineum as the result. She had subsequently borne a child without suffering from rupture, and had not suffered from descent of the uterus. The point made was, that it was not safe doctrine to teach that we should always resort to the primary operation when laceration takes place. He made the remarks simply to give the author of the paper an opportunity to demolish all that he had said.

Dr. S. T. Hubbard remarked that while he had seen several cases of moderate laceration of the perineum, in a large obstetric practice, he had not yet met with one which required an operation. His method of management was to place the woman upon her side, keep the limbs in close coaptation, the parts clean, and allow the rent to heal naturally.

Dr. Thomas, in closing the discussion, remarked that the point presented by Dr. Skene was a most important one, and that he had had the same experience in a similar class of cases. He presumed the explanation was to be found in the altered nerve state and the fatty degeneration of the tissues involved, sufficient to prevent union. However well these operations were performed, they would sometimes fail.

With reference to Dr. Garrigues' criticism concerning the keystone of the arch, he confessed he felt uncertain upon that point, and therefore took occasion to submit the view to two engineers, both of whom admitted that it was a real keystone of an arch; that is, that portion of an arch upon which the two lateral portions rested. The late Dr. Callender also expressed the opinion that the view was correct. Still, Dr. Thomas admitted the force of Dr. Garrigues' criticism.

Another point mentioned was this: Dr. Garrigues said lacerations did not heal if left alone, while Dr. Hubbard said that they did. Dr. Thomas presumed both were correct, notwithstanding the apparent contradiction; that is, Dr. Garrigues was correct in the rule, and Dr. Hubbard correct in the exception. He thought Dr. Hubbard's method an excellent one, but it was not safe for the reason that the patient could not be placed in a position which warded off the danger of septicæmia.

With reference to the power of the perineum, and its being a factor of support in this case, as mentioned by Dr. Barker, he remarked that, given a woman with a perfect perineum, and the relation of the parts with the pelvis would be perfect in every way; destroy that perineum, and at once the parts would fall out of their proper relationship; restore the perineum, and, as soon as it was perfect, all the pelvic organs would be restored to their normal relation, thus arguing for the theory that the perineal body was a great factor for co-ordinating all the parts in the pelvic cavity. With regard to the immediate operation, he thought Dr. Barker and himself differed by reason of mistaking the statement of one as to the rule and the statement of the other as to the exception. As a rule it was right to resort to the immediate operation, but he had seen cases, such as alluded to by Dr. Barker, where it was utterly improper to sew up the laceration. He would simply state that, as a rule, it was safe to sew up the lacerated perineum as early as possible; but as an exception it was bad practice.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Feb. 25, 1880.

Dr. Satterthwaite, President, in the Chair.

A PORTION OF THE PANTS A NUCLEUS FOR STONE IN THE BLADDER.

Dr. Otis presented a specimen of stone, with the following history:

Eight weeks before, a man from Newark presented himself at the clinic of Dr. Otis with the history of a deep close stricture, said to be caused by a blow on the perineum. The patient stated that he was skylarking in a bar-room and was pushed against a broken wooden settee in such a manner that he straddled a wooden peg, which wounded his perineum. He suffered a good deal of pain in consequence; subsequently went home and had some retention of urine. A surgeon was sent for, who drew off a small quantity of urine mixed with blood. The patient passed his urine next day without difficulty, and had no special trouble for six months, when he began to suffer from frequent urination with attendant cystitis. These symptoms were supposed to be due to stricture. The patient passed through several hands, and finally came under the care of a physician who brought him to the clinic. On examination by Dr. Otis no stricture was found, but the large steel instrument which was passed into the bladder struck a stone. The latter was found to be of unusual shape. A large, broad, flat surface was felt, and the shape of the stone forbade its removal by cutting. It was accordingly determined to operate by median lithotomy. On putting the finger through the wound into the bladder a flattened stone was encountered, upon the surface of which were mammillated points about the size of a small marble. The size of this mass was two inches in length by one in breadth. It was crushed by the forceps and removed in two pieces. The stone was then found to contain a piece of woollen cloth two inches long and one inch wide. In a separate fragment of the calculous mass another piece of the same cloth was imbedded. The stone weighed in all 360 grains. Dr. Otis stated that he had in his experience a similar case. A man fell upon the upright handle of a pitchfork and also drove a small portion of his pants into his bladder, which formed the nucleus of a stone half an inch square.

He exhibited a second specimen, which was instructive, inasmuch as it showed how small a foreign body passing into the bladder might be a nucleus for stone. A gentleman aged seventy years, whose bladder had been repeatedly washed on account of prostatic trouble, about eight months ago came to Dr Otis complaining of symptoms of stone in the bladder. On examination the stone was found to be small, three-quarters of an inch being its largest grasp. Bigelow's operation of lithotripsy was performed. The first washing brought out a fragment of stone from which a small piece of broom-straw was sticking out. It sank down the evacuating tube and came out without being detached. A second piece of the straw was also found in another portion of the stone.

In connection with that operation, he had an opportunity of trying for the first time an instrument which he had contrived, and which was a modification of Bigelow's evacuating tube. The modification consisted in a slightly upturned knob at the extremity, which, while it did not interfere with the straightness of the tube as a whole, allowed, at the same time of its easier introduction into the bladder.

In answer to a question from Dr. Wyeth, Dr. Otis stated that he had seen a piece of wax half an inch by a quarter of an inch in size pass freely through the evacuating tube. This was in a case operated upon by Dr Allis. Dr. Otis also, in answer to a question from Dr. Wyeth, stated that he had never used the evacuating tube through the wound after a suprapubic operation.

Dr. Wyeth remarked that he had done so with good results.

EPITHELIOMA OF RECTUM.

Dr. Otis lastly presented an epitheliomatous tumor which he had removed by operation from the rectum of a gentleman aged seventy-four years, who had suffered from symptoms of the disease for a year. The mass was nodular, the size of an orange, and presented the usual gross appearances of such growths. It covered almost the entire posterior aspect of the rectum. The extirpation was effected by transfixing the tumor and bringing it down within reach. The result of the operation was very successful. Three weeks subsequently the parts were healed and the patient was apparently as well as ever.

On motion, the specimen was referred to the Committee on Microscopy.

SARCOMA OF THE ILEUM.

Dr. Wyeth presented a tumor occupying the left iliac concavity of a man who died at the age of forty years. About five years before, the patient had a pimple upon the end of his nose. This growth, according to his account, involved all the soft parts of the tip of the organ and eventually destroyed them. About a year ago he fell, striking heavily upon the situation of his left sacro-iliac synchondrosis. He was laid up in consequence for ten or fifteen days, and then went to work again. Six weeks subsequently he was attacked with peculiar symptoms of paralysis in the left lower extremity, from which he never recovered. Dr. Wyeth saw the patient about three weeks before his death, for threatening gangrene of the leg. This did not, however, become a dangerous symptom. The patient appeared to die of septicæmia. After death the tumor was removed, and was found to be about twice the size of the extended hand. The point of interest was whether or no the disease had an independent origin in the ileum. The growth involved the left lumbar and sacral plexus, and pressed upon the iliac artery. Dr. Wyeth stated that the gross appearances resembled those of a sarcoma.

Dr. Satterthwaite, assuming that the tumor was a sarcoma, was inclined to think that the lesion of the bone was primary. It was impossible to account for the disease on the score of metastasis. If the disease in the nose was a carcinoma, as its history indicated, it could have no possible connection with the sarcoma in the ileum. The change from a cancer to sarcoma was not possible in his opinion.

Dr. Ripley referred to a recurring sarcoma which he had seen several years ago. The disease first occurred by the side of the dorsal vertebræ, and was removed by the late Dr. Buck, who likewise excised a large portion of adjoining healthy tissue. The resulting wound was also thoroughly cauterized by carbolic acid. In a short time afterwards the tumor reappeared, and at the end of two years afterwards was removed by Dr. Ripley. Three months subsequently the tumor reappeared. Two years after this, and four years from first operation, the patient went to Dr Clark, who diagnosticated malignant disease of the spleen, which was probably of a sarcomatous nature. Dr. Ripley had seen another case in St. Francis's Hospital. In that instance, however, the disease recurred in the lung after an unusually long period of eighteen years from the time it made its appearance in the breast.

Dr. Satterthwaite stated that the lungs, liver, and spleen were apt to be involved secondarily when the primary disease attacked the periosteum. The period of reappearance was much longer than that of cancer. He believed that a great many secondary sarcomas were as such overlooked in autopsies, for the reason that sufficient pains were not taken to inquire into the previous history of the patients.

AORTIC AND MITRAL DISEASE—CEREBRAL THROMBOSIS WITH SOFTENING.

Dr. Ridlon presented a specimen of the above with the following history:

Lonisa Lewis, æt. 36; English; widow; nurse. Admitted to St. Luke's Hospital, Dec. 26, 1879. Service of Dr. A. H. Smith. For five years has had pain over heart, and palpitation. For two years has had œdema of the feet at times. For some weeks has been passing more than normal quantity of urine—getting up from four to six times each night. The urine contained fifty per cent. albumen (bulk). Sp. gr. 1024, acid. No casts.

Examination of chest showed tumultuous action of heart; hypertrophy—apex-beat being in seventh intercostal space, two inches outside of the mammary line; and both mitral direct and regurgitant, and aortic direct and regurgitant murmurs.

The patient remained in comfortable condition up to the morning of February 2d, when she fell to the floor unconscious. Consciousness returned in a few minutes, when there was found to be paralysis of both motion and sensation, of left arm and leg, left side of face and tongue, external rectus of left eye, and internal rectus of right eye. The pupils were equally dilated. There was no aphasia. There was incontinence of urine, and the bowels were confined. During the night of February 3d she began to breathe stertorously, and in the morning could not be roused. At 10.30 A.M., February 4th, she became paralyzed on the right side. The breathing became almost entirely abdominal. Pupils remained slightly dilated, and continued to react to the light. Twenty-four hours later patient died.

Autopsy was made twenty-five hours after death. The pericardium contained one and a half ounces of serum. The heart was enlarged in its transverse diameter; left ventricle dilated and hypertrophied; leaflets of the aortic opening thickened and twisted so that a triangular opening was left on applying the water-test. There were no vegetations on them, but several minute ulcers could be seen. The papillary muscles of the mitral valve were atheromatous. The valve closed to the water-test, but was roughened and contracted so as only to admit the end of the little finger. Left pleural cavity contained a moderate amount of serum. Lung not adherent, but œdematous throughout. Right pleural cavity contained forty-nine ounces of clear serum (this was not made out during life). Lung compressed, carnified, and adherent nearly all over with old adhesions. Liver was fatty. Right kidney very small, and the cortical portion the seat of numerous cheesy deposits; pelvis dilated, and apices of pyramids stained a deep reddish brown color. Capsule thickened, but not very adherent. Left kidney physiologically hypertrophied. It contained a number of small cysts, and one cicatrix as of an old infarction. Capsule adherent and thickened.

The membranes of the brain were normal. Brain-substance somewhat injected. A thrombus was found in the basilar artery at its anterior extremity, which was loose and easily detached, and of a deep red color. The left sylvian artery and branches were perfectly clear. In the right sylvian artery a thrombus was found commencing at the division into the anterior and posterior branches leading up to the first branch on the cardiac side, and extending to the ultimate portion of that branch as it passed posteriorly in the direction of the optic thalamus and corpus striatum. Externally to the former was a small spot of red softening. Externally to this latter body was found an area of softened tissue of grayish-white color, about 5×4 centimetres in size, in which was found the distended terminal branches of the arteries. No other point of softening was found. No atheroma in any of the cerebral blood-vessels.

Dr. Carpenter asked if any embolism was found in the thrombus.

Dr. Ridlon replied in the negative, stating that the specimen had not been examined microscopically.

Dr. Wyeth thought that the direct cause of death was due to thrombosis of the basilar, while Dr. Satterthwaite believed it to be due to the spot of red softening.

Dr. Wyeth stated that he had collected twelve cases in which death occurred in a similar manner, and in all of which a clot was discovered in the basilar artery.

Dr. Satterthwaite observed that although a clot was found in the basilar, it was not adherent and did not occlude the vessel.

The Society then went into executive session.

The Medical Annals is a new monthly journal published at Albany, and intended to be the organ of the Medical Society of the County of Albany. Its design is at present to be essentially a local paper. The opening editorial is modestly written, and the contents and general appearance of the first number are excellent.

A Centenarian.—Dr. W. S. Field, of Ridgefield, Conn., writes to us that a woman died recently in South Salem at the age of 101 years and 3 months. Her age is well authenticated.

Correspondence.

THE ABUSE OF MEDICAL CHARITIES, AND PROFESSIONAL INTERFERENCE.

To the Editor of The Medical Record.

Sir:—When I heard Dr. F. R. Sturgis read his paper on the "Abuses of Medical Charities," before the New York County Medical Society, in April, 1879, I thought much good would follow, and that the abuses would be stopped, or perhaps mitigated. The discussion that followed the reading of the paper—in which such men as Agnew, Parker, Noyes, Roosa, and other prominent physicians took part—strengthened me in these views. Nearly a year has passed and this paper has borne no fruit.

That the subject is to be again opened for discussion I judge from the letter of Dr. Jones in the Record for February 14th, and in the leading article in the issue of February 21st.

Soon after Dr. Sturgis's paper started men to think—but, alas! not to act—I moved from New York to a city in another State, flattering myself, at the time, that I had escaped from the injuries the dispensaries were doing the profession in the former city. I had not been settled long in the new locality before it became evident that I had deluded myself, and that the dispensaries in New York had extended their limits for miles into New Jersey, and did not confine themselves to the treatment of the paupers of New York City or State.

The dispensary, as I take it, is for the treatment of deserving, destitute poor, and is a part of a system for the relief of paupers. It is supported by the taxpayer or contributor, and its purpose is not to extend relief beyond its district, especially to a non-resident. This, we think, is a comprehensive definition of the business of a dispensary.

Now, as a Jerseyman I have no objection to the New Yorker paying for the care of our paupers, nor will I object if our poor-houses, etc., are moved over the Hudson, and thus relieve me from the payment of a poor-tax; but, as a physician, I must take exception to the New York dispensaries treating my patients who can afford to pay me.

I could mention many instances where persons fully able to pay have been treated in New York gratuitously. The abuses are more flagrant at the special dispensaries and hospitals. As instances, two persons have come to me for treatment, having in their possession the cards of prominent dispensaries for the treatment of eye diseases (these cards being signed by one or another of the well-known specialists). Both of these patients were able to pay the railroad fare of seventy-five cents twice or three times a week. Now, I argue that if they were able to pay this fare, they were able to pay a physician.

One person in town, whose salary is larger than the annual fees of any doctor in this city, sent his daughter to a New York dispensary for advice, and she was under treatment as a pauper for some time.

I am compelled to acknowledge right here that much of this trouble has been brought on us by the action of two or three physicians in this city. They were and are to-day in the habit, when puzzled over some eye or joint case, of sending the patient to New York for a free diagnosis and treatment.

Now, I must object to all this, and think it the

duty of the officers of the New York institutions to refuse treatment to those able to pay, and especially non-residents.

I question the honesty of New York pauper methods in regard to New Jersey paupers, and I especially object to the New York dispensaries pauperizing our people by treating gratuitously those able to pay.

SQUINTUM.

PATERSON, N. J.

BORACIC ACID CONTAMINATED WITH LEAD.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—When I read in a recent number of the RECORD a paper contributed by Dr. Theobald, of Baltimore, on the use of boracic acid in certain diseases of the eye, it reminded me that at a meeting of the Pharmaceutical Society of Paris, two or three years ago (I believe it was in 1877), a member presented a sample of boracic acid containing a considerable quantity of lead; the gentleman directed attention to the fact that boracic acid was freely employed as an antiseptic and in the preservation of food, and to the serious consequences which might result from its use for such purposes when contaminated with lead.

The employment of this remedy in eye diseases is certainly new to many in America, and will, I have no doubt, be freely used by those acting upon Dr. Theobald's recommendation. In the treatment of conjunctival disease with ulcerative inflammation of the cornea or abrasion of its epithelium, the employment of boracic acid containing lead, would, as we all know, be attended by the precipitate of the latter upon the cornea, giving rise to a very marked white stain, which, according to the locality of the deposit, produces more or less impairment of sight.

This remedy may be quite useful, and it is far from my purpose to prejudice any one against its employment, nevertheless, is it not important for us to remember that such a thing does exist as "boracic acid contaminated with lead"?

Respectfully,

J. A. ANDREWS, M.D.

NECROSIS OF HUMERUS, ETC.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Unfortunately I was not present at the meeting of the Surgical Society following that of December 23, 1879, when the minutes of the latter were read. I see that, probably on account of my inability to express my meaning in English, I have been misunderstood several times, so that some essential points are rendered in a different way from what I wanted to express.

1. In MEDICAL RECORD No. 11, March 13, 1880, page 295 et seq., when mentioning excisions of the hip-joint made at Kiel, five in number, I believe I said instead of "seven weeks," "*several* weeks." I think also that I said, "they died all *except one*."

2. I recommended "cod-liver oil, pure or in combination with syrupus ferri iodidi," not "phosphates."

These two points are of no particular importance, but what I wanted to say regarding the case of necrosis of the humerus is the following:

3. In my case of necrosis of the humerus the necrosis extended in the form of so-called "necrosis dissimulata" through the whole diaphysis, as was shown by the bones presented and a diagram. The elbow-joint was already stiff before the operation, and remained so except a slight amount of motion. As it appears in the report, I think I am made to say the reverse.

Furthermore, when discussing the question, how joints stiffened by inflammation (which, as a rule, accompanies acute osteomyelitis) ought to be treated, with especial regard to *the upper extremities*, where we intend to attain movable joints, I proposed, according to several experiences which I quoted, excision of the joint together with necrotomy, and I emphasized that those excisions were less dangerous on account of the soft parts being less apt to be infiltrated and inflamed. I did not wish to make special reference to the elbow joint, but to joints in general, as far as their being affected by acute osteomyelitis is concerned. I particularly mentioned that, as a rule, the cavities of those joints are obliterated, and perhaps, on account of that, more favorable conditions might exist regarding accidental wound diseases, as erysipelas, etc. The latter idea is not originally my own, but I referred to it as an old experience of which we ought to make use in considering how far the excision of those joints together with necrotomy had to be regarded as complicating and aggravating the surgical procedure.

I would be very much obliged to you if you would find the space to modify the report of the Surgical Society in the above particulars.

Very truly yours,

F. LANGE, M.D.

6 WEST FORTY-EIGHTH STREET.

BORACIC ACID IN EYE DISEASES.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In the MEDICAL RECORD of February 21st you mentioned that Dr. E. Gruening, surgeon to the New York Eye and Ear Infirmary, had written you a note stating "that Dr. Theobald's claim for originality in the use of boracic acid" (referring to my paper, 'Boracic Acid—A New Remedy in Eye Diseases,' in the RECORD of February 7th), "was unfounded. In fact, that the article has been employed by ophthalmologists for many years, and Alfred Graefe, Wecker, Just, Becker, and others have written about it. The value of boracic acid was brought out in a discussion at Heidelberg and Amsterdam during the past year."

Shortly after the publication of my paper, my attention was called to the fact that Alfred Graefe, in his antiseptic cataract operations, had made use of borated lint or cotton dipped in a solution of boracic acid (as recommended by Lister) *as an antiseptic dressing*, and that he had not depended entirely, as I supposed, upon *carbolic* acid. As soon, therefore, as Dr. Gruening's statements came to my notice I wrote to him, asking whether this was the use of boracic acid by ophthalmic surgeons in Germany to which he referred, or if it had been employed *as a collyrium* in inflammatory affections of the eyes, as I had recommended it, adding that if it had been used as a collyrium, I should feel under many obligations if he would let me know where I could find mention of the fact. After the lapse of a week I received a reply from him, in which he says: "In Hirschberg's *Centralblatt für Augenheilkunde* (1878) *Just* published an article on boracic acid, recommending it strongly in blepharorrhœa saturated solution to be dropped into the eyes) and ulcus corneæ serpens. In that article

he refers to Alfred Graefe's use of the boracic acid pad." He also states that he had employed boracic in his own practice very extensively since the publication of Just's paper (whether as a collyrium he does not say), and that in the Transactions of the Heidelberg Congress of German Ophthalmologists, 1879, I would find "a very extensive literature on the subject."

In the meantime, through the kindness of a member of the Heidelberg Ophthalmological Society, an opportunity had been afforded me of examining the Transactions of 1879, referred to by Dr. Gruening. Instead, however, of *a very extensive literature on the subject of boracic acid, and a discussion in which its value as an antiseptic was brought out*, I found, first, an article by Sattler upon the treatment of keratitis, in which he said he had been led to employ *salicylic* acid in the treatment of ulcers of the cornea (as an external antiseptic dressing) by the example of Horner; that a one-fourth per cent. solution of salicylic acid was not, in his opinion, strong enough for this purpose, but a strength of one per cent. was requisite; that it was, of course, impracticable to employ alcohol or hot water (referring to the slight solubility of salicylic acid in cold water) in order to obtain a solution of this strength, but that by mixing three parts of boracic acid with one of salicylic acid *he had been enabled to obtain a one per cent. solution of salicylic acid.*

Neither in the paper itself, nor in the discussion to which it gave rise, was there further mention of boracic acid, and if Sattler used it for any other purpose than simply as a solvent of salicylic acid, he certainly failed to make it apparent.

And again, in the discussion which followed the reading of a paper by Dor, upon Benzoate of Soda in Purulent Ophthalmia, I found boracic acid referred to by Meyer, of Paris, and by Nieden, the former stating that he used pieces of linen (Leinwandlappen) dipped, formerly, in chlorine water, now, either in salicylic or boracic acid solution (applying them externally to the lids) in conjunctival diseases and affections of the cornea, with the happiest results; the latter mentioning that he also had used boracic acid, presumably in a similar manner, although he does not explicitly state this. Beyond this, no mention of boracic acid could be found, though the transactions were searched through with care.

In the September and October numbers of the *Annales d'Oculistique* (1879), which had been kindly lent me, I had found also an extended report of the proceedings of the *Amsterdam* meeting of ophthalmologists spoken of by Dr. Gruening, and there (on page 187) I had discovered only this reference to boracic acid: A paper on the Antiseptic Method in Ocular Surgery, by Snellen, being under discussion, in which he had recommended as an antiseptic and occlusive dressing pieces of linen soaked with vaseline. Becker spoke favorably of this suggestion of Snellen, and remarked that he had used for the same purpose lint saturated with a solution of boric acid. M. Manolescu also stated that at the clinic of Wecker, in Paris, borated dressings (pansement boraté) had been used with very good effect in habitual secretions of the conjunctiva and light catarrhs.

In the *klinische Monatsblätter für Augenheilkunde*, July, 1878, p. 321, I had also found an abstract of an article upon Moist Salicylic Bandages, by Horner, in which he remarks that since he had learned of Lister's boracic bandage, he believed that in boracic acid lay the future of ophthalmic antiseptics, and that his experience had taught him that the boracic acid solution was well received by the healthy cornea.

In none of these instances, as will be observed, is there mention of the use of boracic acid *as a collyrium*, but simply *as an antiseptic dressing*, as Alfred Graefe had employed it in his cataract extractions in 1877.

The article of Just, in the *Centralblatt für Augenheilkunde*, in which, according to Dr. Gruening, he *strongly recommends* a saturated solution of boracic acid to be dropped into the eyes in blennorrhœa—the title of which, by the way, is the Boric Acid Bandage (Borsäure-Verband) in Ulcus Corneæ Serpens—I have been unable to obtain until yesterday, when it reached me from New York, there being no copy of the journal in which it appeared in this city. It had, however, been kindly examined for me in Washington, where the journal is on file, by one whose knowledge of German is far better than my own, and whose name, if I should mention it, would be a sufficient guarantee that it had been accurately and conscientiously done, and the following report made in regard to it, which I prefer to give rather than my own version: "I have examined Just's article in *Centralblatt für praktische Augenheilkunde*, p. 225 (1878, ii). Graefe's article, referred to by Just, is in *Arch. für Ophth.*, 1878, xxiv., p. 232. It treats exclusively of antiseptic dressings in relation to boracic acid. Just recommends this antiseptic treatment in ulcus corneæ serpens, also in affections of the lachrymal sac, and he goes on to say: 'In the latter case (after probing the sac) I have with each change of dressing dropped a four per cent. boric acid solution in the opening of the eye (Lidspalte), and the action of the dressing appears by this means to be considerably increased.

"'Encouraged by these results, and convinced, from an experiment on my own eye, of the very mild effect of boracic acid on the conjunctiva, I have tried dropping-in of boric acid (Borsäure-Instillationen) in two cases of blennorrhœa of the conjunctiva.'

"He deprecates any positive conclusion from so small a number of observations, but suggests further trials. The rest of the article has no bearing on the point at issue."

Dr. Gruening's rendition of this, that "Just published an article on boracic acid, recommending it strongly in blennorrhœa" (saturated solutions to be dropped into the eyes) "and ulcus corneæ serpens," is, to say the least, rather a free translation.

Clearly, then, as an antiseptic dressing, boracic acid has been used by a number of ophthalmic surgeons for several years, Alfred Graefe having been, I think, the first to so employ it, in 1877; and at least one ophthalmologist, Just, has used it as a collyrium in the manner related.* Whether the favorable results which he obtained from the limited use of it, described in his paper, induced him subsequently to employ it more freely, I have no means of knowing, as he has published nothing further upon the subject; at least, there is no mention of his having done so either in the Index Medicus, or in the report on the Progress of Ophthalmology in Knapp's Archives.

For bringing these facts, of which I was entirely

* Through the kindness of Dr. Keyser, of Philadelphia, I have just received a report of the eye clinic, in Bern, of Prof. Pflüger, for the year 1878; from which it appears that he (Prof. Pflüger) was then using boracic acid, both as a collyrium and as an external dressing in conjunctival and corneal affections, with most excellent results. From his language, it would seem that he had so used it as early as 1877, and had spoken of it in his report of that year. Of this, however, even his neighbor and fellow member in the Heidelberg Ophthalmological Society, Just, appears to have been ignorant in October, 1878.

to-night at the time I wrote my paper to pay attention I have to thank Dr Cornening. Had I been conscious of them, I certainly should have referred to them in my paper, and would have chosen for it a different title. Whether or not, however, they justify the assertion contained in Dr Cornening's note to you, and in his letter to me, I leave to others less interested than myself, and no more capable of judging, to determine.

No doubt, I ought to have been familiar with the fact that boracic acid had been used as an antiseptic dressing in ophthalmic surgery; but, for my ignorance of what Just had written about it, I do not feel myself responsible, as the journal in which his observations appeared has never been within my reach.

I may also mention that I have searched through the list of papers relating to ophthalmology in the Index Medicus, from January, 1879, to the present date, and through the list of those published during the year 1878, in Knapps Archives, without discovering one (if we except that of Just on the boracic acid treatment), the title of which indicated that boracic acid was the subject of which it treated.

I am, dear sir, yours with regard,

SAMUEL THEOBALD.

BALTIMORE, March 12, 1880.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 7 to March 13, 1880.

MCELDERRY, H., Capt. and Asst. Surgeon. Having reported in person at these headquarters, assigned to duty at camp at White River, Colo. S. O. 19, Dept. of the Platte, March 5, 1880.

WHITE, R. H., Capt. and Asst. Surgeon. Granted leave of absence for six months, with permission to go beyond sea. S. O. 55, A. G. O., March 11, 1880.

[illegible], P. R., Capt. and Asst. Surgeon. Having reported in person at these headquarters, assigned to duty at Fort Hamilton, N. Y. H. S. O. 39, Dept. of the East, March 11, 1880.

MOSELEY, E. B., Capt. and Asst. Surgeon. Granted leave of absence for one month, to take effect on arrival of Asst. Surgeon McElderry at camp at White River, Colo. S. O. 19, C. S., Dept. of the Platte.

Changes in the Medical Corps of the Navy during the week ending March 13, 1880.

Passed Asst. Surgeon H. E. Ames, detached from the Navy Yard, Washington, and ordered to the U. S. S. Saratoga, vice Passed Asst. Surgeon A. T. Magruder, detached and ordered to the Navy Yard, Washington, D. C.

Passed Asst. Surgeon Robert Whiting ordered to the Iron Clads, Brandon, Va., vice Asst. Surgeon R. Ashbridge, detached and placed on sick leave.

THE AMERICAN QUININE MANUFACTURERS continue their efforts to secure a ten per cent. duty on quinine, or in lieu of this a repeal of the heavy taxes and duties now placed on the raw materials. They laid their case before the Ways and Means Committee last week, March 11th.

MR. HENRY C. LEA, the well-known medical publisher of Philadelphia, has retired from business, and the firm is now Henry C. Lea's Son & Co. He speaks his valedictory in the March number of the *Medical News and Abstract*.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 13, 1880

Week Ending	Typhus Fever	Typhoid Fever	Scarlet Fever	Cerebro-Spinal Meningitis	Measles	Diphtheria	Small Pox	Yellow Fever
March 6, 1880..	0	6	43	3	144	35	0	0
March 13, 1880	0	4	43	2	121	32	0	0

EXEMPTING PHYSICIANS FROM JURY DUTY.—The legislature of New Jersey has recently passed a bill exempting physicians from jury duty.

THE SAN FRANCISCO BOARD OF HEALTH has denounced Chinatown as a public nuisance and a danger to the health of the city. The board has directed the quarter to be torn down, but the step is too radical a one, and the authorities are waiting.

THE CURE OF CATARACT BY ELECTRICITY, ETC.—Dr. Wecker* says: "If by chance you should light on a number of the *Gazette des Hopitaux* which has appeared within the last few years, telling of the clearing power in the lens of weak continuous currents, you will see with what rapture this wonderful therapeutic agency has been welcomed. But, alas! like so many other marvels in the healing art, it was not, after a certain lapse of time, even mentioned, because, forsooth, it involved the nominal expense of two cells of a Trouvé battery, and the trouble of wearing small discs at night, and keeping the tiny machine by one's side in bed.

"Need I mention to you the preparations of ammonia and of phosphorus with which some persons pretend to restore transparency to opaque lenses? I scarcely think so. There is, however, one incontestable fact, and that is, that patients undergo such courses with admirable patience for periods of ten or twelve years. Certain unprincipled quacks make capital out of the improvement that the retrogressive stages of ripe cataracts afford to vision, and also out of the fact that certain nuclear forms never go so far as total blindness."

OVERCROWDED PROFESSION IN LONDON.—There are so many idle doctors in London that one of the busy ones who recently advertised for an assistant, offering £100 a year, received between 400 and 500 answers.

COMMENCEMENT OF THE COLLEGE OF PHYSICIANS AND SURGEONS.—The Seventy-third Annual Commencement of this College was celebrated in Steinway Hall on the evening of March 12th. The attendance was very large, the number of prizes given was greater than usual, and the proceedings had more than usual interest.

After an opening prayer by Dr. Weston, the degrees were conferred by the President, Dr. Alonzo Clark, and the customary exhortation was delivered by President Barnard.

Dr. Clark then delivered an address, in which he

* Ocular Therapeutics: De Wecker. English Edition, page 328.

dwelt chiefly upon the overcrowding of the profession. He showed that the number of medical students increased in times of great financial depression, and that a marked increase had taken place during the past five years. In 1878 there were 2,708 graduates from our fifty-nine medical colleges. At the present rate of increase, for the 57,000 physicians that we now have, there will be, in thirty years, 86,656, which will be too many.

At the conclusion of the address, Dr. Robert F. Weir, President of the Alumni Association, announced that the Alumni prize of $200 for the best medical essay was not awarded last year, because no essay was offered of sufficient merit. Owing to this fact, the prize had increased to $500, and had been gained by Dr. R. W. Amidon, of New York, by an essay on "The Effect of Willed Muscular Action on the Temperature of the Head as an Aid to Cerebral Cortical Localization—Facts and Figures." By the munificence of Benjamin Cartwright, of Newark, they would be enabled to keep up an annual prize to the same amount. Mr. Cartwright had given $10,000 to the college, half the interest to be applied to a lectureship, and the other half to this prize. Next year, therefore, they would have a Cartwright prize of $500, and in 1882 an Alumni prize of $500. Next year also, a prize of $100 from the Joseph Mather Smith memorial fund would be awarded for the best essay on "The Physiological and Therapeutical Effects of Secale Cornutum."

Professor John J. Curtis, Secretary of the Faculty, awarded the prizes for general efficiency, and the "Harsen" prizes. The Harsen prizes for the best reports in writing of clinical instruction given at the New York Hospital, were awarded as follows: John F. Duffield, $150; Judson C. Brown, $75; N. W. Taylor, $25. The following ten graduates showed the greatest proficiency in examination: J. F. Duffield, L. E. Holt, H. Hungerford, H. J. Kelly, R. B. Kimball, A. J. McCosh, F. W. Murray, G. D. Parmly, H. M. Sherman, and W. M. Thallon. To these were awarded prizes from $100 to $25, or diplomas of examination honors. The Harsen fund had so increased, it was announced by the professor, that the Faculty, by the permission of the Supreme Court, had determined to offer a second series of prizes for competition by the ten "honored" men. These prizes, he said, were the highest honor to which a student of this college could aspire, because of the severity of the examinations for them. The winners of these prizes were G. D. Parmly, $500; H. J. Kelly, $300; H. M. Sherman, $200.

Dr. Frederic T. Hume, of the graduating class, delivered the valedictory address, and the Commencement proceedings were brought to a close with a speech by the Hon. Richard O'Gorman, who spoke in part of the progress of civilization and the mighty advances of science.

Grafulla's orchestral band played selections from various operas during the evening.

The number of graduate was 117.

Commencement at the Medical Department of the University of Pennsylvania.—The annual commencement of this college took place March 15th, diplomas being conferred on 111 graduates. The degree of doctor of dental surgery was also conferred on twenty graduates.

A Sure Proof of Death is said by Dr. Hughes Bennett to be found in the application of electricity. If, when faradism is applied to the muscles of the limbs or trunk five or six hours after supposed death, there be no contractile response it may be certified with certainty that death has occurred. No degree of coma or trance can prevent the evidence of electric muscular contractility.

Dr. William Farr's Superannuation.—A pension of $4,000 per annum has been given to Dr. Farr in lieu of the position of Registrar-General, for which he was thought by the government to be too old.

The New York Public Health Association met March 11th, Professor Chandler presiding. Mr. James Gallatin read a paper on the tenement-house question, in which he showed that considerable progress had been made in improving these dwellings, and also that model tenement houses might be built in New York and give a fair return upon the capital invested. Dr. Janeway reported upon the sanitary condition of the city. He said that there were 28,342 deaths last year, an increase of 1,300 over 1878. This increase was among children, and due largely to scarlet fever. In January and February of 1880 there have been 496 fewer deaths than there were in the corresponding months of 1879.

The Pleuro-Pneumonia Act has been repealed by the New Jersey Legislature, to take effect on and after Wednesday, March 10, 1880. The quarantine against New York has been raised, and all cattle will be allowed to enter New Jersey without permit.

Passage of the Bill to establish a State Board of Health.—The above bill has passed the Senate by an almost unanimous vote. Senator Woodin, who reported the bill from the committee, made a very strong speech in its favor. There is scarcely any opposition to the bill, and its passage through the Assembly seems very probable.

International Sanitary Conference, and the National Board of Health.—The Senate Committee on Epidemic Diseases agreed, on March 11th, to report to the House, with recommendations for passage, the following measures: Joint resolution authorizing the President to call an International Sanitary Conference to meet at Washington, D. C.; Senate bill with amendments "to increase the efficiency of the National Board of Health;" joint resolution to print 10,000 copies of the report of the National Board of Health, and 10,000 copies of the report of the Yellow Fever Commission.

A Plea for Oleomargarine as a Food-product.—Representatives of the oleomargarine industry appeared before the House Committee on Agriculture and Manufactures on March 10th, in opposition to any legislation injuriously affecting their product. They claim that oleomargarine is identified with butter; that both the real butter and oleomargarine butter are simply animal fat, and the difference in the process of manufacture makes no difference in the substance. They stated that the factory in New York is now making 40,000 pounds of oleomargarine butter per day, and that there are eleven such factories in Baltimore, Louisville, Chicago, and other cities. That the exports of oleomargarine oils from the port of New York alone amounts to 5,000 tierces per month. They protested against any discriminating legislation, on the ground that their product is a genuine food-product, pure and wholesome in itself, and a fit substitute for butter.

The Hunterian Museum is about to receive the richest anthropological collection in the world. The gift is from Dr. Bernard Davis, who has for years devoted his time to collecting crania and skeletons from all possible sources.

The Bill to Regulate the Practice of Medicine in Massachusetts has met considerable opposition, and its friends are doubtful of its passage. If passed and rigorously carried out, it will rid Massachusetts of many of its quacks, a class which seems to thrive quite as abundantly in Boston as anywhere else.

New York Dispensary.—Dr A. C. Valentine has been appointed house physician in place of Dr F. R. Starrs, resigned. Salary, $1,200.

Verdict in Regard to the Care of the Insane.—The verdict in the case of Maria Ottmer, who was killed in the Blackwell's Island Lunatic Asylum, has been rendered, and is quite condemnatory of the asylum management on that island. The jurors deliberated for three hours, and in their verdict repeat substantially the complaints that have been reiterated in the columns of the Record. They find a lack of proper system, and general irresponsibility, and say: "In our opinion the commissioners in charge of our asylums and hospitals should be men qualified by education and training for the position, and should be kept separate from the government of penal institutions." They recommend a medical superintendent be speedily appointed to take charge of the Blackwell's Island Asylum, as one man is insufficient for taking proper care of both institutions.

As this very positive verdict was given in the face of powerful efforts to smooth the matter over, it must carry additional weight.

The Kentucky School of Medicine dedicated its new college building on February 9th.

Revision of the U. S. Pharmacopeia.—The Sixth Decennial Convention for the revision of the U. S. Pharmacopœia will meet in Washington on the first Wednesday in May. A number of important changes are proposed.

Medical Department of Iowa State University.—The Commencement exercises of the Medical Department of the Iowa State University occurred at Iowa City on the evening of March 3d, in the New Opera House.

Candidates for graduation had been undergoing for two days previous the annual "public examinations" conducted by six members of the Iowa State Medical Society, the examining committee of this year consisting of Dr. L. P. Fitch, Charles City, Chairman; Dr. H. M. Dean, Muscatine; Dr. A. L. Wright, Carroll; Dr. E. W. Clark, Grinnell; Dr. J. C. Kersey, Stuart; Dr. J. T. Thomas, Walnut, Secretary. The report of the committee, made to the Board of Regents of the University, spoke in terms of highest commendation of the honesty and efficient nature of the work done by the students. The class valedictorian was F. S. Johnson, of Maquoketa. Two ladies and twenty gentlemen received the degree of Doctor of Medicine. The exercises were closed with the "address for the faculty" by the Dean, Dr. W. F. Peck. The class of graduates was formed largely of students who adopted the "three year graded" course at its inception in the school, and the high standing of the class has added to the strong predilection in favor of the three year plan. The examination by an independent board is another progressive feature of this school.

Commencement of College of Pharmacy of N. Y.—The fifteenth annual commencement of the College of Pharmacy was held Tuesday evening, March 16th, at Chickering Hall. The hall was filled with visitors, and on the platform there were Ewen McIntyre, President of the College, Prof. Chandler, Prof. P. W. Bedford, Prof. Fradel, Prof. C. Rice, Prof. Alonzo Wood, Dr. Mollinger, Prof. D. C. Robbins, A. A. Agnew, and G. C. Close. President McIntyre opened the exercises with a brief address, after which Secretary H. A. Carmeber, Jr., read the names of the graduates, forty-four in number. For the highest proficiency in all branches of study, Joseph Feil, of Cleveland, Ohio, received the first prize, a gold medal; Julius A. Risky, of College Point, N. Y., the second prize, silver medal, and Frank L. Morris, of Newark, N. J., was awarded third prize, a bronze medal. Mr Feil was also presented with a special prize—a microscope—for the best thesis on botany. Besides the prize men, the College inscribed upon its roll of honor the names of those students who had answered over eighty per cent. of the questions. These were George Kraft, Jr., J. C. Comstock, A. A. Merritt, H. Breiting, F. Nadler, J. Albert, Jr., O. Klingenburg, H. M. Kolasky, A. Koertage, and W. P. Blair. The Rev. Edward L. Clark then delivered an address, and F. L. Morris pronounced the valedictory.

After the exercises, the Faculty, Alumni, and invited guests, partook of a dinner at Seighortner's.

The toasts with their respective respondents were as follows: The College of Pharmacy, by H. J. Menninger, M.D.; The Examining Committee, by Prof. Chas. Rice; Chemistry, by Prof. C. F. Chandler; Our Editorial Colleagues, by Dr. F. A. Castle; The Medical Profession, by Dr. Geo. F. Shrady; Our Contributors, by Mr. D. C. Robbins; Our Guests, by Mr W. P. De Forest; The Alumni, by Mr. C. A. Robbins.

The Presentation of a Gold Watch to Prof. Chas. Rice.

Prof P. W. Bedford, in concluding the exercises of the evening, referred to the admirable report in the revision of the U. S. Pharmacopœia, the work of Prof. Chas. Rice. In recognition of such distinguished service to pharmacy, the friends of the college, through Prof. Bedford, presented Prof. Rice with an elegant and costly gold watch suitably inscribed, and with chain attached.

Dr. Benjamin Hopkins Catlin, a distinguished physician of Meriden, Conn., died recently at the age of seventy-nine years, of Bright's disease of the kidneys. Appropriate resolutions of respect were passed by the local medical society.

Books Received.

Practical Treatise on Nervous Exhaustion (Neurasthenia). By George M. Beard, A.M., M.D. New York: W. Wood & Co. 1880.

Observations on Fatty Heart. By Henry Kennedy, A.B., M.B. (Univ. Dub.). Dublin: Fannin & Co. London: Baillière, Tindall & Cox. 1880.

Essentials of Anatomy. By William Darling, M.D., F.R.S.C., and Ambrose L. Ranney, A.M., M.D. New York: G. P. Putnam's Sons. 1880.

Montreal General Hospital Reports. Vol. I. 1880.

On Headaches. By William Henry Day, M.D. Third edition. Philadelphia: Lindsay & Blakiston. 1880.

Original Communications.

FORTY ATTESTED CASES OF DIPHTHERIA;

With Remarks on Diagnosis and Treatment.

By C. E. BILLINGTON, M.D.,

VISITING PHYSICIAN TO DEMILT DISPENSARY, NEW YORK.

Four years ago I had the honor of submitting to the consideration of this Society* an account of my clinical experience and observations in the treatment of a large number of cases of diphtheria, with certain resulting conclusions as to the true nature and therapeutics of the disease. That report is included in the Transactions of the Academy for 1876. While the reception accorded to it by those who heard it, and by many others who have subsequently read it, has been with scarcely an exception courteous, and, in not a few instances, most flattering, and while its teachings have been warmly endorsed by many intelligent physicians in all parts of the country, yet several causes have operated against its universal acceptance at what I believe to be its full statistical value:

First, its conclusions were in several important respects opposed to the views then held, and perhaps still held, by a majority of the profession.

Second, the results of treatment which it related were very favorable. Medical literature—especially journalistic literature—teems with reports of equally good or still better results obtained by the most diverse, the most opposite, and often the most familiar and the most inadequate means. The hopes awakened by these statements have again and again been found delusive.

Third, there is a notable absence of definite agreement in the profession as to the principles and methods of the diagnosis of this disease. Hence, many of the most judicious, while often perplexed in their own classifications, are naturally distrustful of the enumerations of others, and of those especially in which unusually brilliant therapeutical successes are claimed. It must be admitted that a certain degree of scepticism under such circumstances is as proper and conservative as it is inevitable, and can be successfully met only by convincing proof.

My previous report was mainly compiled from the clinical records of dispensary practice, most of which had been made before their publication had been thought of. Other proof than such facts, considerations, and testimony as I was able to adduce in support of their probability, was then impossible. It subsequently occurred to me, however, that if, in another large series of cases, which should be attested by witnesses of known competence and character, I should be able to report a similar ratio of favorable results from the same methods of treatment, it would doubtless be accepted as placing the substantial accuracy of my previous statements beyond reasonable doubt. To this end I requested Drs. W. T. White and Andrew H. Smith to visit such cases as might be met with in my dispensary practice, and certify to the genuineness of such only as they might consider so well marked as to be unmistakable. These gentlemen were selected not only on account of their fitness, but because their residence was such that they could make these visits without too great inconvenience. They kindly acceded to my request. This was at the beginning of 1877.

Reversing a familiar proverb, it may truly be said that it is a good wind that blows no one any ill. The continued abatement of the prevalence of diphtheria in my dispensary district—the Twenty-first ward—amounting of late to its almost complete disappearance, has rendered the accumulation of test-cases a tedious process, and less satisfactory in point of numbers than could have been wished. This abatement is illustrated by the following figures: In the great epidemic in that district of 1875, which was the occasion and the principal topic of my previous paper, 124 dispensary cases were visited; in 1876, 37, the statistics of which I reported in the Medical Record of January 12, 1878; in 1877 there were 18; in 1878, 18; and in 1879 only 4—not a case having now been seen since last September. This diminution has occurred while the total number of patients visited has increased. It is true that diphtheria has continued to be quite prevalent in some portions of the city; but it should be remembered that epidemics here are frequently, if not usually, more or less local and limited, and those of diphtheria especially, doubtless depend, in part at least, on endemic conditions which are imperfectly understood, and cannot be discussed in this paper.

It will be conducive to clearness and brevity in the narration of these cases to first recapitulate as concisely as is possible the principles and the therapeutical methods which it was desired in them to put to the test of further practical application.

DIPHTHERIA A PRIMARILY LOCAL AFFECTION.

The principle which I believe to be fundamental to all sound theory and practice in diphtheria is that the disease is, to all practical intents at least, to be considered as primarily a local affection, and that all its specific constitutional phenomena are simply secondary results by absorption from that source. I hold this belief for reasons which I must beg leave to reiterate:

First, because in some hundreds of cases of all grades of mildness and malignancy which I have had the opportunity of observing at quite an early stage in ten years of dispensary practice, the local membranous affection has always preceded those constitutional symptoms which are peculiar to the disease. There are no distinctive primary symptoms of diphtheria—those which are often described as such being simply common to the onset of various catarrhal throat affections. But it is stated, *per contra*, by excellent authorities, that death or paralysis has resulted from the primary poison of diphtheria in cases in which no membrane has been present. It is very easy to be deceived on this point. I have not infrequently seen cases in which the constitutional symptoms of diphtheria were evident, but on careful examination no membrane was visible. Such cases will be mentioned in the present report. In all such instances, however, membrane has been proved to exist in some concealed position. Again, it is well known that epidemics of diphtheria and of scarlatina are frequently associated. How naturally under such circumstances might a death from malignant scarlatina without eruption be erroneously attributed to diphtheria! The fundamental laws of disease, like the other laws of nature, are uniform. Shall the evidence of a hundred concurring positive observations be outweighed by that of a negative one, the conclu-

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ave proof of which is, in the nature of things, well nigh impossible?

Second, because the gravity of the constitutional symptoms is generally proportionate to the extent and depth of the membranous affection.

Third, because the employment of proper local and constant treatment does, in many cases, promptly subdue or quite dispel constitutional symptoms previously existing, or, if early employed, prevent either wholly or in great measure their occurrence. This is notably true of the symptom albuminuria, which has so often been adduced as especially characteristic of diphtheria, and an evidence of its primarily constitutional nature. The laws of its relation to diphtheria being properly understood, it goes over with strong reinforcement to the opposite view.

Fourth and finally, because proper local disinfectant treatment is beyond all comparison the most effective of the means at our command for successfully combating the disease. The further corroboration of this statement is the principal object of the present paper.

Having, from these clinical considerations, with suggestions from various sources in medical literature, arrived at this pathological view, and the logically resultant therapeutical method which I have since employed, I received great and delightful confirmation in both, with much additional instruction, from perusing the most admirable and valuable monograph* of Dr Jacobi. This was a year before my first report was written.

DIAGNOSIS.

My diagnosis of diphtheria has always been based on the presence of membranous exudation, which I believe to be the one pathognomonic sign of the disease. True membranous exudation in the fauces and pharynx is never altogether superficial to the mucous membrane, though it may be so in the trachea and bronchi. In this observation I am confirmed by Virchow, who adds that there is therefore no croupous angina or pharyngitis. The depth to which the exudative process may penetrate the epithelial layers, however, varies greatly in different cases, and on this more than anything else depends the gravity of the constitutional affection. This diversity has been made by many the basis of a pathological division, the more superficial deposit being called croupous, and that only in which the deeper epithelial layers or the sub-epithelial tissues are involved, as diphtheritic. Such a distinction, however, ignores the fact, which is generally admitted, that the exudation in both forms is essentially identical, and the other more conclusive one, that the two forms are constantly seen together, not only in groups of associated cases, but in the same case.

Even so excellent an authority as Wagner, in his valuable article on the disease in the sixth volume of Ziemssen's Cyclopædia, while he expressly admits that these forms are but varieties of one main affection, yet violates etymology by employing the misleading nomenclature of croupous and croupous-diphtheritic. The proper classification is into mild and grave, or shallow and deep.

But the important question remains, How is diphtheritic exudation in its early stage or its milder forms to be distinguished from certain other appearances which often closely resemble it, but pathologically bear no relation to it?

I answer that in ordinary pharyngitis we often see whitish patches of pultaceous follicular secretion, or smearings of white tenacious mucus, or ulcers of various kinds, covered over with or surrounded by more little distances by whitish or grayish mucopus. These appearances may be very deceptive to the inexperienced eye. Their true character may be readily ascertained by brushing them with a swab, or, still better, by throwing a stream of water upon them from a syringe. In herpetic angina, the little vesicles and the resulting ulcers are easily recognized when clearly exposed to view by this method.

But by far the most frequent occasion of error in diagnosis is the very common affection known as acute catarrhal, lacunal, or follicular tonsilitis. That I can, in the limits of this paper, touch only briefly upon it causes me the less regret, as so excellent a sketch of it was recently presented to the Academy by Dr. Lefferts. In this angina there may variously be seen on the swollen tonsil or tonsils little spots or streaks of white muco-pus flowing from and surrounding the lacunal orifices, or the points of cheesy masses protruding from them, or a whitish or grayish patch of inspissated conglomerate material covering and concealing several of these orifices and the intervening mucous surface. These patches vary in size ordinarily from that of a silver three cent piece to that of a ten cent piece. They are often rather firm in texture, and may bear a striking resemblance to diphtheritic membrane; or there may be two such patches, one above the other, or, again, in occasional instances, nearly the whole surface of the tonsil is covered with a thick and firm investment of this character. If this appearance is accompanied, as it sometimes is, with grave constitutional disturbance, distress, and prostration, if there is some enlargement of cervical glands, if the throat is filled with tenacious muco-pus, perhaps rendered sanious by points of ulceration; if there is fetor of the breath; if on the uvula or the palatine arches are the whitish smearings above referred to, the practitioner who has not studied this subject carefully and well naturally supposes that he has to deal not only with a case of diphtheria, but with a grave one, and is delighted at his success in curing it in two or three days, as he is certain to do if his treatment is not more formidable than the disease.

But how shall the diagnosis be made? Not by the circumstance that the exudation is limited to the tonsil or tonsils, for that is often true in diphtheria; nor by its short duration, for that is equalled by very mild forms of diphtheria; nor by the test of infection or non-infection, for catarrhal tonsilitis is probably sometimes infectious; nor by the presence or absence of albuminuria, for reasons which are elsewhere stated. Whitish points projecting or liquids oozing from the lacunal orifices are pathognomonic. A circumstance that I believe to be of some diagnostic value is, that the single patches above referred to are usually situated on the greatest convexity of the tonsil—that is, the portion that looks toward the uvula or the other tonsil; while, on the other hand, diphtheritic membrane is rarely, if ever, limited to that position, but, when it occurs in a small patch, is rather more marginal. I can give no anatomical explanation of this circumstance except that the crypts opening upon the central portion of the tonsillar surface are the largest and deepest.

In the rarer cases in which the greater portion of the tonsil is covered, the investment may be seen to be rather coarser in texture than true diphtheritic membrane. It presents, also, the appearance of being spread superficially over the mucous membrane

* In Journal of Obstetrics, Feb., 1875.

rather than in intimate union with it; and this appearance indicates the reality, which is the most important element in the diagnosis. If a portion of it be scraped off, which can generally be easily done with a suitable instrument, the unimpaired surface of the mucous membrane beneath it is evidence of its non-diphtheritic character. Or, preferably, a smart syringing of the tonsil with warm salt water will usually at once clear up the difficulties of the diagnosis. The diphtheroid deposit will be in part at least broken up and washed away, showing its friable and superficial character, the epithelial surface appearing intact, except just about the lacunal orifices, where there is frequently some appearance of inflammatory erosion.

The diphtheroid membrane of follicular tonsillitis, if undisturbed, will disappear after two or three days. There may then be seen, in many cases, about the lacunal orifices, shallow pits or depressions, the result of the erosion just referred to, or deeper cavities appear, sometimes with precipitous and jagged edges, as if portions of tissue had been gouged out. These are probably the gaping mouths of crypts from which masses of solid accumulation have just been discharged. They are most often seen on the upper and inner portion of the tonsillar surface. It is, doubtless, mainly due to these common appearances, that the term ulcerative sore-throat has come into such general use. They mark the termination of the acute stage of follicular tonsillitis, and confirm the diagnosis, as they do not, according to my observation, follow those mild forms of tonsillar diphtheria which are of equally short duration.

It should be added, that catarrhal tonsillitis occurs epidemically and endemically. My former assistants and I have many records of its affecting, while thus prevalent, nearly all the members of a family, and several families in a house, and the inmates of various houses in a neighborhood. May not this fact explain some of the wonderful therapeutical triumphs in epidemics of so called diphtheria of which we hear and read, in which cases have been treated by the hundred without a single death?

For the purpose of inspecting the throat, the child should be placed directly in front of a window, or a good artificial light. Its hands must often be held by one person, and its head by another. Many an error in medical practice, and in medical literature, has resulted from negligence or incompetence in throat examination.

TREATMENT.

In the treatment of diphtheria by methods of local disinfection, the danger to be most sedulously avoided is irritation. It is this which has again and again brought these methods into deserved disrepute.

Swallowing a little water at frequent intervals would doubtless be of some utility in helping to remove foul secretions from the throat. I have instead employed, in most cases, in alternation and usually at half-hour intervals, teaspoonful doses of the following pleasant mixtures: 1st, two scruples of chlorate of potassa, with half a fluid ounce of glycerine and two ounces and a half of lime-water; 2d, one fluid drachm of the tincture of the chloride of iron, with an ounce each of glycerine and water. I have omitted the use of the latter mixture, in some cases, with advantage. The tincture of iron has apparently a valuable constitutional, as well as local, effect in some cases; in others it has neither, and in some it has an injuriously irritant action even in mild dilution. It is far from being a specific for the disease.

I have also had the throat sprayed very frequently when practicable, by means of a hand-atomizer, with a mixture of ten minims of carbolic acid in four ounces of lime-water.

It is not worth while to defend the importance of these simple formulæ against those who would sneer at such details. I will mention, however, that I have in more than one case, either in my own practice or in consultation, seen very bad results from slight deviations from them, through the error of the prescriber or of the apothecary, which had the effect of making them less efficient, less pleasant, or more irritating. The recognition of the true principle in the treatment of diphtheria is nearly as ancient as the description of the disease. That it has not long ago been universally adopted and utilized by the profession to the saving of many thousands of lives, is because its discovery was not accompanied with that of the details necessary to its successful application.

Finally, but in many bad cases first in importance, I have washed the affected surfaces, at suitable intervals, by means of a syringe. The instrument employed has been the Roosa hard-rubber ear-syringe; the liquid, a weak tepid solution of common salt. It should be thrown through the open mouth into the throat, or through the nostrils into the nasal passages and the pharynx, and continued until the foul and poisonous secretions are thoroughly washed away and fetor is corrected. It is essential that this be done *secundum artem*. The method was described in my previous paper.

In the treatment of young children, I have found it very important to avoid the use of any unpleasant medicine, such as quinine, cubebs, etc.

Stimulants may be useful in the later stage of protracted cases, and in convalescence. Given early and freely, they too often prove not an antidote, but an auxiliary poison to that of the disease. Instead of sustaining they help to overwhelm. Such, at least, has been the teaching of my experience formerly in their employment, and latterly in their more general disuse. The large majority of cases in the present series, as in those that I have previously reported, have been treated absolutely without them. If there has been agreement in the profession on any one point in the treatment of diphtheria, it has been in the early and free use of alcoholic stimulants, which has indeed been advocated by some as a specific. Have the general results of this practice been so brilliant that those of a different course may not be experimentally tested?

Proper nutrition is of the greatest importance. Milk has ordinarily been my main reliance. It should be given freely and often—even by force, if necessary; and rectal alimentation, when indicated, should by no means be omitted.

In the relation of the following cases details are given of a few only which illustrate some important lesson, and such brief description only of others as is necessary to show the actual types of the disease that have been dealt with. [The reader who may lack the time or patience requisite for their perusal is referred to the subsequent *résumé* of their most important features.]

The first six cases occurred in one family. They all proved easily controllable, and three were extremely mild. Their interest, therefore, is rather diagnostic and pathological than therapeutical. Their history is as follows:

Case I.—John Dagnell, aged 4, visited at 332 East Thirty first street, January 7, 1877. He had been taken two days before to Bellevue Dispensary, where his case had been diagnosed as diphtheria. A liquid had been prescribed which his mother was to apply to his throat with a brush. I found him with high fever and cachectic aspect; refusing nourishment; tonsils much swollen, and membrane on the right one; cervical adenitis and purulent nasal discharge. He was evidently doing badly. Under my treatment improvement was rapid. The next day the appearance of his countenance was comparatively healthy, and he was taking nourishment well. On January 11th, membrane had disappeared, and nasal discharge had ceased.

Case II.—Bernard, his twin brother; January 12th. A similar case of tonsillar and nasal diphtheria. Seen by Dr White. Duration, six days. Urine tested on fourth day; no albumen.

Case III.—Joseph, aged 2; January 14th. Well-marked diphtheritic membrane on lower anterior aspect of right tonsil. Seen by Dr. White. Duration, two days.

Case IV.—Thomas, aged 9; January 15th. Taken ill that morning. Tonsils inflamed, and on the right one two transverse streaks or bands of membrane. These streaks remained unchanged though vigorously brushed with a swab for some minutes in the presence of Dr. Harriman, now of Manchester, N. H. At length, by persistent scraping with the point of my forceps, I succeeded in detaching some small bits or tufts which had only a feeble cohesion, leaving a roughened and raw-looking surface. This substance was examined microscopically by Dr. Satterthwaite, and found to be "an amorphous substance containing myriads of rod-shaped bacteria, and a limited number of pus-corpuscles and epithelial scales."

Case V.—Ann, the mother, aged 30; January 17th. Taken ill that morning. Thin membrane covering the lower posterior surface of right tonsil.

January 18th, a similar patch also on left one. Removed some of the latter with forceps after persistent scraping for ten minutes, leaving a raw-looking surface, and submitted it to Dr. Satterthwaite, who found it to consist of a "glutinous substance in which the fibrillation is very faintly marked. There are, however, many layers of flat epithelial elements, and with them a large amount of pus. Rod-shaped bacteria are numerous as usual." On the 20th, membrane had disappeared.

Case VI.—Ellen, a nursing infant, aged 11 months; January 23d. Taken ill the previous night. On the lower posterior aspect of each tonsil is a well-marked patch of membrane. Next day I detached a bit of this with forceps, leaving a raw and bleeding surface. Dr. Satterthwaite gives the following report of this specimen: "Microscopically the deposit is seen to consist of pretty well-marked fibrillated tissue, throughout which are numerous pus and epithelial corpuscles, bacteria of rod-form and leptothrix filaments. There is also some blood."

January 28th.—Membrane has disappeared.

On February 10th following I was called to see Bernard, the second of the above series, and found him suffering from regurgitation of liquids through the nose, inarticulate and nasal speech, and insensibility of palate. Dr. Swezey, physician to the class of nervous diseases at the dispensary, confirmed my diagnosis of faucial diphtheritic paralysis.

The diagnosis of diphtheria in the mildest of the above cases seems to be established by the completely demonstrated character of some of the cases, by the occurrence of all in a continuous series, and by exclusion. In neither of them was there any indication of follicular inflammation nor any form of ulceration. To save repetition I will now add that this is true of every case mentioned in this report. The microscopic examinations were in the first two instances of exceptionally slight and imperfectly organized membranous deposit on the first day, and probably within a few hours of its occurrence. It is to be noted that this comparatively superficial diphtheritic deposit conformed in its relation to the mucous membrane to the law above laid down.

Case VII.—Rose McCaffry, aged 11 months, 340 East Thirty first street; January 13th, third day of the disease. Membrane on both tonsils; nasal discharge with excoriation of nostrils and upper lip; fever, adenitis; evident diphtheritic toxæmia; refuses the breast. Seen by Dr. White. Cured in four days. Three weeks later was attacked with convergent strabismus of both eyes, which was also seen by Dr White, and which persisted for several months.

Case VIII.—A fatal case. These will be subsequently described.

Case IX.—Mary McAuliffe, aged 8, 435 First avenue, March 12th, second day of the disease. Sleeplessness, vomiting, distress, and marked diphtheritic pallor. Swelling of submaxillary glands. A patch of membrane on the soft palate, extending down over the right anterior faucial pillar. Temperature, 102°.

March 14th.—Urine examined, no trace of albumen.

March 17th.—Discharged cured the sixth day of treatment. Seen twice by Dr. Smith, and daily by Dr. A. E. Prince, now of Grand Rapids, Mich.

Case X.—The following case, presenting features of especial interest, will be related in extenso: William Foster, aged 3, 489 First avenue; March 17th. Had been feverish and vomited all night. Faucial and external swelling. On posterior side of left tonsil a patch of membrane. March 18th.—General condition improved; had slept some, and had taken food and drink pretty well. March 19th.—There had been a sudden change to cold and windy weather. Found the child playing on the floor in a cold room. Throat more swollen and both tonsils covered with membrane. Temperature, 101¾°. March 20th.—Still worse. Membrane had extended over the posterior wall of the pharynx and the back part of the tongue. Throat full of a viscid secretion. March 21st.—Several pieces of membrane have been coughed up, and none remains in the throat except the original patch on the posterior side of the left tonsil, which is particularly firm and thick. March 22d. Condition of the throat the same. Urine for the first time scanty, and the countenance has that heavy and puffy appearance that suggests uræmic poisoning. The urine is found to be heavily loaded with albumen. Indisposition to take nourishment, and occasional vomiting. Dry cups were applied over the kidneys, and, in addition to the other remedies, infusion of digitalis and citrate of potassa were prescribed.

March 23d and 24th.—No change in the symptoms, the thick membrane persisting on the left tonsil, and the urine continuing scanty and heavily loaded with albumen.

March 25th.—Membrane has disappeared. Urine much increased in quantity and contains but little albumen. Vomiting has ceased and the case is considered convalescent.

March 26th.—Much worse. Membrane again on left tonsil. Urine again scanty and heavily albuminous. Vomiting began in the night, and frequent all day. Nourishment refused. Child pale, weak, irritable, drowsy, vomiting frequently, and refusing nourishment. Prognosis bad. I now learned that the child, who had no mother, had been entrusted at night to an aged grandmother, who had neglected to give his medicines and milk as directed, which was doubtless, in part at least, the cause of this alarming change.

I now decided to discontinue all other medication and to combat the constitutional disease entirely by the usual anti-diphtheritic measures, which were from this time faithfully carried out both by day and night. Warm poultices were directed to be kept over the abdomen and lumbar region.

March 27th.—Somewhat stronger and brighter. Vomits only seldom, and retains some nourishment.

March 28th.—Much improved. No vomiting; takes milk freely. Urine more abundant, but still somewhat albuminous. Membrane on left tonsil very dense, firm, and thick.

This condition continued unchanged for six days more. At length the obstinate patch of membrane disappeared. The next day the albumen in the urine had greatly diminished, and on the following day was scarcely perceptible. Convalescence was this time permanent. This case, which is of no very unusual type, yet presents some features which deserve to be distinctly noted: First, the very common one of the occurrence of rather extensive membranous exudation, all of which was comparatively superficial, or, as some prefer to call it, croupous, and disappeared under treatment in two or three days, with the exception of one patch—that on the posterior side of the left tonsil—which was very deep and unyielding, the latter having persisted for seventeen days in two successive deposits of eight and nine days' duration. Second, the occurrence of albuminuria after exposure to cold about the fifth day of the first deposit; its marked diminution after the detachment of the membrane; its return in aggravated degree after the formation of the second; its diminution under faithful disinfectant treatment, and its prompt cessation after the final disappearance of the membrane. Third, this case illustrates the difficulty and the importance of knowing that directions are faithfully carried out—a difficulty not always confined to dispensary practice. Fourth, the importance of having sufficiently definite and clear convictions to persist in a proper line of treatment, even when a case is progressing unfavorably, and of remembering that the stomach of a child whose vital forces are prostrated with diphtheritic poison, is not a suitable receptacle for a varied assortment of powerful and nauseating drugs.

This case was seen by Dr. White, three times by Dr. Smith, and daily with valuable assistance in treatment by Dr. Prince

About ten days after his recovery, this child was attacked with paralysis, both of the fauces and the lower limbs, which disappeared without special treatment in five or six weeks.

Case XII.—Thomas Malony, aged 7, 506 First avenue; September 19th. In spite of treatment this case grew worse, and on the 21st, when seen with me by Dr. Smith, presented a swollen and œdematous throat, left tonsil much enlarged and covered with membrane, cervical glands on that side enlarged, hard and tender, high fever, and marked evidences of diphtheritic toxæmia. So plainly was the case one of bad tendency, that Dr. Smith remarked that it would be a good one to test the efficacy of my treatment.

Four days later he again saw the case with me. Membrane had disappeared, faucial swelling had diminished, adenitis was scarcely perceptible, pulse and temperature were nearly normal, though pallor still remained. Duration of membranous affection under treatment, six days. The urine was twice examined and exhibited no trace of albumen.

Case XIII.—Mary Callahan, aged 2½, 340 East Twenty-sixth street; September 24th, third day of illness. Every attempt to swallow at once followed by vomiting. Profuse purulent discharge from nostrils, producing angry inflammation of upper lip. Throat red and much swollen. No membrane visible.

September 25th.—A band of membrane now encircles the uvula, which is doubtless a continuation from a previously existing deposit on the posterior side of the soft palate. High fever and marked cachexia.

I at once commenced syringing the throat through the mouth and the nasal passages twice daily, and directed the two mixtures and milk and lime-water to be given by force. The case was seen by Dr. Smith.

September 28th.—Vomiting has ceased, and nasal discharge diminished. Uvula still coated with membrane. Milk and medicines taken freely. Pieces of membrane washed from behind the palate by syringing.

September 30th. Nasal discharge has nearly ceased, and membrane on uvula diminished. General condition good. Thinking the other remedies would now be sufficient, I took away my syringe.

The second day afterward (October 2d), I found the case much worse than ever. The child was feverish, pale, and weak; had not slept, refused nourishment, membrane on uvula had increased, and nasal discharge was again profuse. Syringing was resumed.

October 3d.—Urine tested; no albumen.

October 8th.—Membrane has disappeared and nasal discharge has ceased. Duration of disease under treatment, fourteen days.

Case XIV.—Edward Barr, aged 5, 350 East Thirty-second street; September 29th, fourth day of illness. Severe tonsillar diphtheria, with implication of the posterior nares. The case had been seen the day before by a respectable physician, who had prescribed the too common combination of iron, quinine, and glycerine. This the child, who was neither a lover of bitter things nor yet a Stoic philosopher, had, after once tasting, refused to take. Dr. Smith probably remembers how much time and how much moral suasion were expended before the little patient could be induced to taste the medicines which I had prescribed. Having once tasted them, however, every difficulty at once vanished. He was discharged cured four days later. Urine tested on fourth day; no albumen.

Case XV.—Kate Madden, aged 5, 232 East Twenty-ninth street; October 22d, third day of illness. A very grave case; high fever, pallor, cervical adenitis, intense pharyngitis, with large patch of membrane on each tonsil. Seen by Dr. White.

Oct. 23d.—Profuse purulent nasal discharge; syringing twice daily. 24th.—Seen by Dr. Smith.

Oct. 25th.—Membrane has disappeared from tonsils, but covers left faucial pillar.

Oct. 27th.—This has disappeared. Patch on right pillar. Great general faucial inflammation. Moaning and delirium at night; nose-bleed frequently. Urine tested; no albumen.

Oct. 29th.—Only small spots in the throat, but a

large patch of membrane occupies centre of the tongue.

Oct. 31st.—Membrane has disappeared. Some nasal discharge continues. Marked pallor and extreme feebleness.

Nov. 3d.—Discharged cured; thirteenth day of treatment.

Cases XVI., XVII., and XVIII.—Henry, Antony, and James Sargahan, aged 6 years, 4 years, and 10 months, 422 East Twenty-fifth street, November 17th, 22d, and 23d. Three cases of medium severity, with membrane on both tonsils in first and third; on right tonsil and faucial arch in second. The first and second seen by Dr. Smith, the third by Dr. White. Duration under treatment, three days, four days, and six days. Urine tested in the first two; no albumen.

Case XIX.—Carrie Fitzpatrick, aged 2½, 310 East Thirty-first street, January 14, 1878, third day of illness. Much faucial inflammation and glandular swelling, but no membrane visible. Profuse purulent nasal discharge, and throat filled with similar material. Marked diphtheritic pallor and depression. Diagnosis of probable membrane posteriorly to the soft palate.

Jan. 15th.—This diagnosis confirmed by the appearance of membrane on the posterior side of the uvula. The usual remedies employed, including syringing twice daily.

Jan. 16th.—Membrane also on posterior aspect of both tonsils. Seen by Dr. White.

Jan. 18th.—Improved. Membrane and nasal discharge diminished. Seen by Dr. Smith.

Jan. 19th.—Discharged cured, having been under treatment five days.

Case XXI.—Sarah Hawley, aged 5, 590 Second avenue; February 11th. A severe case, with membrane on both tonsils and uvula, faucial swelling, and much cervical adenitis. Urine tested on fourth day; no albumen. Duration, seven days. Seen by Dr. Smith and daily by Dr. O. B. Douglas.

Case XXII.—A gangrenous case. Edward Scully, aged 5, 338 East Fortieth street; February 19th, eighth day of illness. The history given by the parents was that he had been attacked a week before with sore throat and much swelling, with white patches in his throat. He had been treated by a homœopathic physician, who had steamed his throat. He had continued to grow worse. Much glandular swelling about the neck, and great faucial tumefaction. Some membrane on uvula and left faucial arch, but the surface of the right tonsil and of the posterior wall of the pharynx occupied by gangrenous inflammation and sloughing with most offensive odor. Foul purulent discharge from nose. Extreme pallor and weakness. Swallowing extremely difficult.

Although recovery was considered impossible, treatment was commenced and faithfully continued; the internal remedies, spray, and throat and nasal syringing, being assiduously employed.

Feb. 21st.—Some improvement, but patient is very weak. Swallows with the greatest difficulty. Masses of black, offensive slough have been detached from his throat by direct syringing.

Feb. 23d.—Nasal discharge has nearly ceased. Membrane persists on uvula. Gangrenous material nearly removed from throat, leaving raw and painful surfaces. Swallowing is a most distressing effort; no sleep. Alarming weakness and prostration. Urine tested; no albumen.

Feb. 26th.—Condition of throat improved, but increased dysphagia, with continued sleeplessness and weakness.

Feb. 28th.—Throat quite clean. Much evident loss of substance, but the granulating surfaces are healthy. Takes liquid nourishment freely and sleeps well. Duration of disease, seventeen days, under my treatment nine days.

This case was seen twice by Dr Smith, daily by Dr O. B. Douglas, and also at times by several other physicians. It is probable that few cases so unfavorable as this have ever recovered.

Case XXIII.—Will Shaw, aged 1 year and 10 months, 491 First avenue, March 6th. A severe case. Cervical adenitis, membrane on both tonsils and uvula, nasal implication, and laryngeal croup, which persisted for ten days. Treatment the usual remedies, with syringing twice daily. Seen by Dr Smith, and daily by Dr. Douglas.

Case XXIV.—Delia Joyce, aged 5, 319 East Thirty-ninth street, March 8th. Membrane covering both tonsils and uvula; cervical adenitis and evident toxæmia. Cured in five days. Urine tested on third day; no albumen. Seen by Dr. Smith and Dr. Douglas.

Case XXV.—Matilda Geis, aged 3½, 382 Third avenue; April 18th, third day of illness. A most malignant and toxious case. Great faucial and external glandular swelling. Temperature, 104°. Extreme prostration. Membrane covering both tonsils and encircling uvula. Purulent fluid filling the throat and flowing from the nostrils. Large pieces of thick membrane were repeatedly washed by syringing from the post-palatal region. Persistent membrane on tongue and lips. In spite of an unfavorable prognosis, treatment, including syringing twice daily, was kept up for three weeks. During the last week quinine, brandy, and beef-juice were freely administered. Discharged cured on the twenty-second day, but continued in a critically feeble condition for several months. Seen by Dr. Smith and daily by Dr. Douglas.

Case XXVI.—Thomas Duffy, aged 4, 230 East Twenty-ninth street; June 26th. Tonsillar diphtheria of medium severity. The membrane, having exfoliated after four days, was replaced on both tonsils by a second formation, which persisted for four days more. Seen by Drs. White and Douglas. Urine tested on the fourth day; no albumen.

Case XXVIII.—John O'Brien, aged 9 months, 590 Third avenue; August 5th. A very severe and tedious case. Membrane on both tonsils, uvula, and gums. Much cervical adenitis and nasal implication. Syringing twice daily. Discharged cured on twelfth day of treatment. Seen by Dr. White and daily by Dr. Douglas.

Case XXIX.—Jane Reynolds, aged 3, 340 East Thirty-sixth street; Sept. 11th. A most malignant and obstinate case. Membrane covering soft palate, uvula, and tonsils. Much faucial and external swelling; nasal implication. A piece of firm membrane an inch long, and a quarter of an inch thick, washed from the post-palatal region by syringing, and others nearly as large on subsequent occasions. Membrane was removed by treatment, only to be renewed again. That it was only the persistent local treatment that saved the case from a fatal issue was proved by the fact that on two occasions, when it was intermitted for a single night, the condition of the patient had become almost hopeless, with increased local disease, high fever, and the usual evidences of severe constitutional infection. On the renewal of thorough treatment these symptoms would

abate. The disease persisted until Oct. 7th, a duration of twenty-seven days. This case was seen by Dr. White, and daily, with valuable assistance in treatment, by Drs. Douglas and F. C. Riley.

Case XXXI.—Patrick Campbell, aged 6, 583 First avenue; Oct. 27th. Tonsillar diphtheria of medium severity. Duration, six days. Seen by Dr. Smith and Dr. Douglas.

Case XXXII.—Carrie Wardleigh, aged 17, 523 First avenue; Nov. 14th. Distinctive membrane on both tonsils. Duration, four days. Seen by Dr. Smith.

Case XXXIII.—Mary Thompson, aged 12, 233 East Thirty-third street; Nov. 28th, third day. A gangrenous case of the worst type. Its features and history are so similar to those of case twenty-two, which it fully equalled in severity, that details may be omitted. Urine examined on the sixth day; no albumen. On Dec. 11th, the thirteenth day of treatment, diphtheritic disease had disappeared, and gangrenous destruction had been replaced by healthy granulation. Considerable loss of tissue was evident. Seen by Dr. Darken, twice by Dr. Smith, and daily by Dr. Douglas. Faucial, laryngeal, and ocular paralysis followed.

Case XXXIV.—Bridget Heffern, aged 25, 315 East Twenty-ninth street; Dec. 16th. A grave case. Membrane on posterior aspect of both tonsils; subsequently on right posterior pillar, and later, serious laryngeal implication set in, with aphonia and dyspnœa. Duration under treatment, fifteen days. Seen by Dr. Smith, and daily by Dr. Douglas.

Case XXXV.—Nellie Sheridan, aged 8, 338 East Thirty-fourth street; Dec. 20th. A well-marked tonsillar case, of medium severity. Duration seven days. Seen by Dr. Smith, and daily by Dr. Douglas.

Case XXXVI.—Will Fitzgerald, aged 1, 333 East Thirty-fifth street; Dec. 27th. Well-marked tonsillar and nasal diphtheria. Duration, under treatment, five days. Attested only by Dr. Douglas, who saw it daily, as Dr. Smith, though repeatedly requested to visit it, did not find leisure to do so.

Case XXXVIII.—This case presents the rather curious history of scarlatina without eruption supervening upon pre-existing diphtheria—the reverse of the usual order; the resulting disease being one of extraordinary severity.

Thomas Touhay, aged 6, 311 East Thirty-seventh street; February 3, 1879. Had had a cold for two weeks, and sore throat for four days. Membranous patches on the posterior side of both tonsils, and on the post-pharyngeal wall. Throat and nares full of most offensive secretion, and syringing brought from the posterior nares small masses of gangrenous slough. The usual evidences of diphtheritic toxæmia. No symptom of scarlatina.

On the 6th, a younger brother was attacked with malignant scarlatina, and died on the 7th. On that day a sudden and violent rise of temperature in the patient, with increased faucial redness, showed the effect of scarlatinal poison. There was, however, at no time any eruption, nor the strawberry tongue. The child rapidly sank into a profound typhoid condition. The urine and fæces were passed unconsciously for twelve days. The temperature in the axilla was as follows: On the 7th, 105.2°; 8th, morning, 105.2°; evening, 104.5°; pulse weak, rapid, and intermittent; 9th, morning, 105°, evening, 104.5°; 10th, 104.8°; 11th, 103¼°, tongue swollen, otorrhœa; 12th, 101¼°. During this period much foul material, with occasional pieces of membrane, was washed by syringing, morning and evening, from the post-palatal region. During this period, Dr. F. C. Riley, to whom the treatment of the case was mainly entrusted, asked me if such remedies as digitalis, quinine, and brandy, were not plainly indicated. I replied that our patient was almost certain to die, but that we would probably give him his best chance by locally combating diphtheria and septicæmia, supplying nourishment, and, for the rest, trusting with the least possible medication to the reserve forces of nature. Accordingly, our disinfectant measures were persevered with, and milk was given frequently by compulsion, with an occasional teaspoonful of beef-juice. To our surprise we continued to find him alive each morning, though in a critically low condition, until the 20th, a period of fourteen days, when diphtheritic disease had disappeared and convalescence began. The child owes his life to Dr. Riley's faithfulness and perseverance, and also, as I believe, to our disregard of indications. This case was seen by Dr. Smith.

Case XXXIX.—Ann Kennedy, aged 10, 338 East Thirty-third street; March 18th. A very severe case. Much faucial and glandular swelling, foul gangrenous odor, membrane on both tonsils and covering the anterior pillars, and every evidence of diptheritic toxæmia. Mother out at work, and only an aged and imbecile grandmother present. Calling again in the afternoon, I found the mother at home. Left an atomizer, having showed her how to use it, and obtained a promise from her to stay at home and take care of her child.

March 19th.—Found the mother again absent, and the father at home, dead-drunk—he and the imbecile grandmother being the only nurses.

March 20th.—Mother again absent. A stupid neighbor, to whom the care of the child had been entrusted, had been operating in the throat, on her own responsibility, with a swab. Patient in every way worse. I now made arrangements with my assistants, Drs. Riley and Hoag, to henceforth insure faithful treatment by very frequent visits, both by day and night.

March 21st.—Somewhat better. Urine tested; no albumen. Improvement was now continuous, the last trace of membrane being seen on March 31st, the fourteenth day of treatment. This case was seen by Dr. Smith.

That the difficulty in securing efficient nursing was no greater in this case than in a number of others, of which I spare the details, will be readily believed by those who know the peculiarities of dispensary patients. Nor was it always possible to so fully obviate it by personal attendance as in this instance. This disadvantage should in fairness be taken into consideration in estimating the results of treatment.

Case XL.—Lizzie Howard, aged 14 months, 502 Second avenue; September 20th. Throat generally swollen. The uvula, which was several times its normal size, had a thimble-like coating of firmly organized and moderately thick membrane. Occasional vomiting. Swallowing evidently painful.

In order to avoid irritation I prescribed only the chlorate of potassa mixture, requiring this and milk and lime-water to be given frequently by force.

The last trace of membrane was seen on the 25th, the sixth day of treatment. This case was seen by Dr. Smith.

Of the forty cases included in this report, six terminated fatally, viz.:

Case VIII.—Ann George, aged 2, 339 East Twenty-

fifth (sixth) February 16, 1877. Severe croupy symptoms. Membrane on posterior aspect of tonsils.

February 17th.—Extreme laryngeal obstruction. Tracheotomy performed by Dr. White. The patient lived fifty-three hours after the operation. The trachea below the wound was lined with partially organized membrane, which lay loosely on the mucous surface.

Case X.—Thomas Lee, aged 10 months, 189 First avenue; March 12, 1877, third day of the disease. Extensive facial diphtheria, with high fever. Child sleepless and refuses to take.

March 13th. Greatly improved under treatment. Nurses and sleeps. This improvement continued until night, when dyspnœa set in, evidently from laryngeal obstruction, which increased rapidly, and death from asphyxia ensued on the evening of the 14th, tracheotomy having been refused. Seen by Dr. Smith and Dr. Prince.

Case XX.—Mary McGowan, aged 1 year and 6 months, 520 Second avenue; February 9, 1878, third day. A sickly, ill-nourished child of strumous diathesis. Has an unhealed sore on her hand of four months' standing. Membrane on both tonsils, uvula, and velum, with much swelling, and nose so much obstructed that efficient syringing is impossible. Marked diphtheritic toxæmia. Prognosis bad.

February 11th.—Profuse nose-bleed. The parents having become discouraged, neglected the regular use of the remedies.

February 16th.—The child died from septicæmia and exhaustion. The unfavorable circumstances in this case were, first, the advanced stage of the disease when treatment was commenced; second, the age; third, exceptional inefficiency in the nursing; and fourth, the low vitality of the patient. The case was seen by Dr. Smith and Dr. Douglas. Stimulants were in this instance freely administered from the first.

Case XXVII.—Robert Brown, aged 3, 308 East Twenty-sixth street; first seen July 8, 1878, the fifth day of illness. Drs. White and Smith both being out of town, Dr. Herrick kindly saw the case with me. It was then in a hopeless and almost moribund condition from extensive faucial deposit, toxæmia, and laryngeal croup. Tracheotomy was refused, and death occurred from asphyxia on the following day—less than twenty hours after the case was first seen. It will, of course, be excluded from the list of those in which treatment could be in any degree tested.

Case XXX.—Ann Daly, aged 7½, 312 East Thirty-eighth street; seen September 27, 1878. This case, as was stated by the parents, after having been under the treatment of a physician for a week or more, had been abandoned by him. It had then come under the charitable notice of Dr. W. O. Moore, who had referred it to the dispensary for treatment. It was visited at evening by Dr. F. C. Riley. The atomizer he prescribed was not even procured. I only learned of the case on the following day so as to see it about noon. The patient was then moribund from laryngeal croup, and died from asphyxia a few hours later, tracheotomy having been refused. This case also will be excluded from the list of those in which treatment could be in any degree tested.

Case XXXVII.—Kate Rooney, aged 3, 314 East Thirty-ninth street; January 3, 1879. Laryngeal diphtheria, with extensive faucial deposit. The exceptional perversity and negligence of the parents rendered efficient treatment impossible. The child died from asphyxia on January 7th. This case was seen daily by Dr. Riley.

RESULT OF CASES, WITH REMARKS.

Out of these 40 cases, then, *seen* in dispensary visitation, there were 6 deaths, but out of 38 cases *treated* with such efficiency as was practicable under most unfavorable circumstances there were 4 deaths—or a little over 10 per cent.

The statistics which I have previously published, of which the present series has been a continuation, and was intended to be a test, were as follows. In 1875, out of 124 cases visited in the same district, 20 died; but out of 98 treated, 10 died; and in 1876, out of 87 cases visited there were 5 deaths, but out of 32 treated there were 3 deaths—about the same percentage in each series.

But a further classification of the present series will doubtless add to the instruction which may be derived from them.

Of the 38 cases treated, 6 were one year old or under, 5 from one to two, 5 from two to three, or 16 of three years or under—an unusually large proportion, and as is universally conceded, and for obvious reasons, an unfavorable circumstance. This portion of the cases included all of the fatal cases—the ages in these being respectively ten months, eighteen months, two years, and three years.

The gravity under treatment of the thirty-four cases that recovered may be fairly stated as follows: Very mild, three (Nos. 3, 4, and 5); mild or moderately severe, fifteen (Nos. 1, 2, 6, 7, 14, 16, 17, 18, 24, 26, 31, 32, 35, 36, and 40); decidedly severe, five (Nos. 9, 12, 21, 23, and 29); extremely severe, including three gangrenous ones, eleven (Nos. 11, 13, 15, 22, 25, 28, 29, 33, 34, 38, and 39).

The location of diphtheritic exudation in the thirty-eight cases treated was as follows: tonsils only, 11; tonsils and velum, 3; tonsils and nares, 4; tonsils, soft palate, and nares, 8; tonsils and tongue, 1; tonsils, nares, uvula, and gums, 1; tonsils, nares, soft palate, and tongue, 1; tonsils, nares, soft palate, tongue, and lips, 1; uvula, 1; velum, 1; uvula and nares, 1; tonsils and larynx, 1, tonsils, soft palate, and larynx, 4.

Of the five in which the larynx was involved, two recovered and three died. Implication of the larynx is by far the most unfavorable circumstance that ordinarily occurs in diphtheria. It is so for obvious reasons, one of which is that the larynx is, of all the localities that are liable to be affected, the one to which it is most difficult to efficiently apply disinfectant treatment. In my previous paper I expressed the belief, supported by cases, that the very frequent use of the spray of carbolic acid and lime-water is one of the most reliable means for accomplishing that object, and that it not only sometimes cures, but tends to prevent laryngeal diphtheria. In the three fatal laryngeal cases in the present series the patients were too young to permit this means to be employed. The principle of the supreme importance of local disinfectant treatment is no less strikingly confirmed in its limitations and failures than in its successes—its failures being those cases in which it cannot be or is not efficiently applied.

In laryngeal cases in which the spray cannot be employed, the weight of published evidence is doubtless in favor of the utility of the treatment with the steam of lime-water, though it should be remembered that the cases of its use that are reported are usually those that terminate favorably rather than the larger number in which it fails, and though, moreover, there are certainly grave theoretical objections to it.

Setting aside in the present statistics the three

fatal laryngeal cases, there remain thirty-five cases, an unusually large proportion of which were of great severity, with only one fatal result, and that in a sickly child of one and a half years under particularly inefficient nursing. And this is but a repetition of my previously published experience through a series of years in much larger numbers of cases.

What, then, should be the prognosis in diphtheria? I answer that the presence of laryngeal implication must always occasion grave anxiety, especially in the cases of very young children. The same is true of exceptionally malignant faucial diphtheria in occasional instances of very young children of bad powers of resistance. With these exceptions and but few others, I do not hesitate to assert, realizing the full solemnity and responsibility of the assertion, that the disease, as a rule, can be and should be cured, and that the physician who fails to cure it should anxiously question the soundness of his therapeutical methods, or the skill, the judgment, or the faithfulness with which they have been applied.

The duration under treatment of membranous disease in the thirty-four cases that recovered was as follows: 2 of two days, 2 of three days, 4 of four days, 5 of five days, 6 of six days, 2 of seven days, 1 of eight days, 1 of ten days, 1 of twelve days, 2 of thirteen days, 3 of fourteen days, 1 of fifteen days, 2 of seventeen days, 1 of twenty-two days, 1 of twenty-seven days. This is of importance, not merely as showing the grave and persistent type of many of these cases, but as illustrating just what has been accomplished by treatment. In the milder cases the comparatively superficial membranous exudation has been dispelled and the duration of the disease shortened, but in those of deeper and severer grade the amount of membrane has been diminished by the early removal of the more superficial portions, the deeper patches persisting or being repeatedly renewed. At the same time enough of the locally produced poison in the foul secretions of the throat and nasal passages has been either neutralized or washed away to prevent fatal septicæmia, the patient being thus kept alive until the membranous affection has finally yielded. And this suggests the inquiry, would it be generally an advantage if we possessed an innocuous solvent by means of which we could at once remove deep and firmly adherent membrane? I believe not. Such membrane is probably a desirable protection until such time as it exfoliates by natural processes, when there has been sufficient tissue-repair beneath it to render its presence no longer necessary. It is true that while it remains *in situ* its under surface is a laboratory for the production and retention of septic poison. But there seems to be possible sufficient transudation of fluids through it, so that by the frequent application of disinfectants to its surface this evil is partially obviated. I am led to this conclusion by the fact to which I have already referred, that there is often, after the commencement of disinfectant treatment, a prompt and striking improvement in the symptoms that depend on toxæmia, though the membrane may remain undiminished. Though the temptation to effect the early removal of such membrane by forcible avulsion or chemical destruction is great, it is therefore a temptation which should usually be resisted. *Ne quid nimis* is a golden rule in the treatment of diphtheria.

In fifteen of the thirty-four cases which recovered, throat and nasal syringing was employed. No one who watched the progress of these cases could have doubted that but for this procedure most of them must have terminated fatally. Nasal implication has been pronounced by eminent authorities one of the most unfavorable circumstances in diphtheria, but by the timely and proper use of this therapeutical measure it is robbed of its terrors. I repeat with emphasis its *proper* use—for I have known it to be very badly done even by physicians, and when it is inefficiently or bunglingly practised, or is overdone, it may be not only useless but injurious. It is not only in removing foul accumulations from the nasal passages that it is useful. The action of common salt in producing exosmosis and causing free secretion from mucous surfaces is well known, and in this way it has proved of great service in relieving congestion, promoting disinfection, and expediting the detachment of membrane in bad forms of pharyngeal diphtheria. The superiority of this mode of applying it over that of gargling is beyond comparison.

The urine was tested for albumen in fourteen of the foregoing cases, including a fair proportion of the most severe—always when the disease had continued for some days, and usually when it was at its height. That it was not tested in all was simply because some of the patients were so very young, and from negligence in other cases. In only one (No. 11) was any trace of albumen found.

The occurrence of albuminuria is rather the exception than the rule in cases of diphtheria which are properly treated.

Success, such as I have described, in the treatment of diphtheria will never be attained even with the nominal employment of these methods by merely issuing directions in one or two brief visits daily, but can only be the reward of the closest, the most determined, and the most intelligent attention to every detail, with a dexterity in manipulation and adaptation of means to each particular case that can only be the result of experience. It must be seen that the child takes his medicines and his nourishment. He must, if possible, be taught to permit the use of the spray. While gentle persuasion is sufficient in most instances, stern determination or actual force is now and then required. The issue in many a case depends on tact and efficiency in this particular. It is equally necessary that the parents or nurses be not only instructed but trained in each practical detail, and inspired with the faith and zeal that will insure the absolute carrying out of every direction, through the anxious and weary days and nights of a perhaps tedious and discouraging illness. If the treatment of bad forms of this disease makes unusual demands on the vigilance and energies of the physician, there is scarcely another in which he can so often be compensated with the supreme satisfaction of having unquestionably been the instrument of saving life.

I might reinforce the conclusions drawn from this series of cases, with the lessons of a few treated during the same period in my private practice, and of a larger number seen in consultation, and with the concurrent testimony of numerous interesting and instructive letters which I have received from physicians in all parts of the country, who have tested this method of treatment; but the proper limitations of time have already been exceeded.

That I have now twice presumed to ask the attention and occupy the time of the Academy on this topic, has been in obedience to such considerations as were recently so eloquently urged upon us by our honored President in speaking of the obligations of those holding positions in public institutions to the profession at large. Having, in the course of my duties as out-door dispensary visitant, enjoyed rather

exceptional opportunities of clinically studying this subject, I have endeavored and to the best of my ability placed the result of that study before the profession, with no worse wish than that so much of it only as is true may meet with acceptance, and that it may prove of service to some.

ETHYLIZATION:

THE ANÆSTHETIC USE OF THE BROMIDE OF ETHYL.

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MY observations of the anæsthetic action of the bromide of ethyl, which commenced nearly one year ago, have been directed to its physiological action in the human subject, to its practical application in the relief of human suffering, and to its value as compared with other anæsthetics. Every administration has been carefully watched and studied, and records of its phenomena have been made as they were observed. From such basis of experience, I present some facts which may at least help toward a proper estimate and appreciation of its therapeutic value.

Since the publication of my recent articles on the subject in the *Philadelphia Medical Times*, my continued observations have been generally confirmatory of the statements then made. I now summarize the deductions from my entire experience in the anæsthetic use of the bromide of ethyl, and present my convictions in regard to its comparative value.

The terms bromide of ethyl and hydrobromic ether are arbitrarily applied by chemists, in accordance with differing chemical nomenclature; but, for distinctiveness, and without reference to chemical accuracy, I prefer the former expression. I prefer to give to the substance the generic name of ethyl, and speak of ethylizing and ethylization on the same grounds, as, by common consent, the words ether and etherization are applied to sulphuric ether.

The decided characteristics of the administration are its rapidity of action and the quickness of recovery from its impression. I have produced complete anæsthesia in cases of young children in less than one minute. The longest period required to produce the anæsthetic state in adults has not exceeded five minutes.

The ethylized patient recovers much more rapidly than is the case with chloroform or ether. Intellection and muscular co-ordination are regained very soon after the inhalation has ceased. In some instances these functions return as quickly as after the administration of the nitrous oxide gas, and frequently the patient, on awakening, is able to at once stand erect and to walk.

If the anæsthetic impression be slowly effected, a brief period of intellectual excitement, associated with muscular action or rigidity, may occasionally be manifested; but violent emotion and struggling, if they should occur, are more moderate, brief, and transient than in the early stage of the anæsthesia of ether or chloroform. The stage of excitement can generally be avoided by making a rapid impression of the anæsthetic. I have observed that persons accustomed to the habitual use of alcoholic stimulants are less readily impressible by anæsthetics generally, and with them a stage of excitement is apt to precede anæsthesia. In this class of subjects narcotics act as stimulants, and the same holds true with regard to anæsthetics.

As anæsthesia is developed the circulation generally shows evidences of moderate excitement, as indicated by some increase in the rapidity of action of the heart, and the pulse evinces greater general arterial tension. The face of the patient usually becomes brightly flushed, and, when anæsthesia is profound, the forehead and the general surface are apt to be moist with sweat. In these respects the anæsthesia differs from the ordinary pallor of countenance and the usual cheek of skin-transudation of chloroforming.

The physiological action of the bromide of ethyl does not incline to the dangers of cerebral anæmia and cardiac syncope, which sometimes occur in chloroforming, and, in my experience, no tendencies in such directions have seemed to threaten.

The respiration is slightly increased in frequency until anæsthesia becomes complete, when it assumes the characteristics of normal sleep. The decided indication of the attainment of very profound anæsthesia is the slowing of the patient's breathing, as in ordinary sleep, which becomes easy, long, and free. The irritation of the respiratory passages, which often inconveniences the inhalation of ether, does not occur in any degree with the bromide of ethyl. If brought into contact with the skin of the face, it is less irritating than chloroform.

I do not recognize any ordinary after-effects on awakening from the anæsthesia of bromide of ethyl, the patient speedily returning to his normal sensations and usual condition with but a drowsy sense continuing for a brief time. In my own person, the whole impression is more agreeable than is that of ether or chloroform; and others who have thus tried comparatively the different anæsthetics have expressed to me the same appreciation.

The liability to nausea and vomiting is less than after ether and chloroform, but is not entirely avoided. Occasionally vomiting will occur when food has been but recently taken, and I have in a few instances observed decided nausea and retching when no food was in the stomach, and merely some frothy mucus was ejected. The quick relief from the anæsthetic impression of the bromide of ethyl seems to render less likely the long continuance of the distressing nausea and vomiting which are liable to follow etherization and chloroforming. It should be borne in mind that the fully anæsthetized patient never vomits, and that the manifestation of nausea during the continuance of the inhalation is the indication for making the impression more profound. When vomiting occurs and persists after anæsthesia passes off, it can be best relieved by giving to the patient small pieces of ice to swallow, or a full draught of ice-water.

The quantity of the bromide of ethyl required to produce anæsthesia varies with individual susceptibility and with the manner of using it. Its rapid evaporation causes much loss by diffusion in the atmosphere, but this waste may, with a view to economy, be to some extent avoided. I am in the habit of administering it by pouring two or three fluid drachms on several folds of woven lint, or on a small, soft linen handkerchief, over which is pinned a napkin, folded large enough to cover the entire face of the patient. Anæsthesia is, in my experience, more quickly obtained without the intervention of excitement, if light is excluded, and the temptation to look about avoided, by covering the eyes with a napkin. This plan seems to me to be the simplest and the best, and I trust that the anæsthetic use of the bromide of ethyl may never become complicated

or embarrassed by any forms of the absurd contrivances called inhalers. Such apparatus implies that all individuals are, under all circumstances, to be dosed with anæsthetics in the same mechanical manner. Nothing can be gained by any mechanical device for the purpose, excepting economy in the use of the anæsthetic, and some of the numerous devices would rather tend to wastefulness. A simple napkin or piece of lint, or both together, which absorb and gradually exhale the vapor, are perfectly effective and controllable as the means of administration, and nothing more can be required. With an extremely economical object, the texture upon which the anæsthetic is poured may be covered with an impervious material, or by a napkin dampened with water.

In commencing the inhalation of the bromide of ethyl, I prefer always to make a rapid and decided impression, with the lint and napkin held closely over the nose and mouth of the patient. It is the object to attain anæsthesia without the intervention of mental and muscular excitement. In the administration of another anæsthetic—the nitrous oxide gas—we are familiar with the uncontrollable excitement liable to be produced by slowly inhaling small quantities; and we know as well what profound anæsthesia is induced by rapid and impressive doses of the gas. In the method which I prefer of administering the bromide of ethyl from a piece of folded lint and a napkin, it does not seem possible to exclude so much atmosphere as to cause danger from asphyxia. The air which, through the open texture of the material and from lateral directions, reaches the lungs, must really contain but a very small percentage of the vapor, and at every expiration it is forcibly blown away.

In my experience the entire quantity of ethyl consumed in effecting and continuing anæsthesia in any single case has varied from one fluid drachm, used in a very brief period, to eleven drachms required in maintaining anæsthesia through an operative procedure of forty minutes' duration.

After having tranquillized the patient's mind by assurances of freedom from suffering and danger, I direct him to inspire and expire, for a time, as deeply as possible. The expirations should be so complete that the residuary air is expelled from the lungs. While continuing to thus breathe deeply, the inhalation is commenced.

This preliminary drill I regard as important, and it will always facilitate the proper production of anæsthesia. Until complete anæsthesia is effected there should not be allowed a moment during which the patient does not inhale the vapor, and as the anæsthetic becomes exhausted it should be quickly replenished.

It is proper that the administrator should be able to recognize and be satisfied with the simple production of the anæsthetic state—insensibility to pain—without pushing the inhalation, as is often through ignorance or carelessness done, to a dangerously toxic condition. The best indication of complete anæsthesia is the change in the breathing of the patient to that of ordinary deep sleep. When anæsthesia becomes profound there may be a more or less snoring or puffing sound, due to relaxation of the palatine and buccal muscles. With such manifestations the administration should cease or be very moderately continued. It should be borne in mind that all anæsthetics become eventually, by continuance, depressing agents, and their administration should not be viewed as a matter of trifling responsibility, and entrusted to careless or inexperienced persons. The administrator should exclusively direct his attention to what he is entrusted with, regarding only the condition of the patient, and not observing the operative proceeding. I have witnessed an ignorant and heedless assistant resting his elbows on the chest of a patient, whose labored respiration and livid, turgid face showed threatening asphyxia, while the administrator gazed abstractedly at a surgical procedure taking place at the groin.

I cannot too much impress the greater importance of observation and reliance on the state of the respiration, rather than of the circulation, as an index of the condition of the ethylized patient.

The patient's position should, if possible, be that of dorsal recumbency, with the head slightly elevated and flexed. It is well to remember that in the sitting or erect positions there may be more danger to very feeble patients from syncope. During muscular excitement the neck should not be allowed to be forcibly curved backward, as is the tendency, producing tension on the ante-tracheal muscles and impeding venous return. The chest and abdomen should be free from the mechanical restraint of tight clothing, so that full and deep inspiration may not be impeded. If it should be necessary to have the patient in the prone position, the administration requires watchfulness lest respiration should, by pressure, become embarrassed.

When practicable, the taking of solid food should be avoided by a patient for four hours, and liquid food for three hours before the administration. If the patient's condition should be feeble, alcoholic stimulants or ammonia may in advance be given. When, in an emergency, anæsthesia must be induced very soon after a meal, the act of vomiting should be carefully watched, and the patient's trunk so held that ejected substances may not gravitate into the larynx. Should such an accident occur and threaten life, the complete inversion of the trunk should be energetically made, and forced expiration aided by successive and rapidly alternating compression of the chest.

No fatal case referable to the action of the bromide of ethyl has occurred, nor even in the now large number of administrations, as far as I am aware, have there been any dangerous or threatening symptoms; yet, just as in what ought to be the almost invariably safe administration of sulphuric ether, death may occur, but it will, most probably, be in cases in which, if proper care had been observed, the fatal result would have been avoided. Its action does not seem insidious or uncertain; but, judging from the careless and bungling manner in which other anæsthetics are sometimes administered by incompetent persons, I think that so agreeable and unirritating an agent as the bromide of ethyl is liable to be ignorantly, heedlessly, and inordinately used, and its usual harmless and beneficent anæsthesia pushed to toxic conditions, and even death.

Should respiration become embarrassed, as evinced by pallor or lividity of the face, the free access of fresh air, aided by fanning, should be allowed, and the fauces cleared of mucus. The tongue should be forcibly drawn forward by seizing it with the fingers covered by a napkin, to prevent its slipping, or it may be necessary to lift it from the fauces with a tenaculum or the artery forceps. Cold water should be dashed on the face and chest. If the pulse should show signs of failing, or symptoms of cerebral anæmia appear to threaten, the head of the patient should be rendered pendent below the general level of

the body, and the vapor of ammonia should be inhaled.

In the major operations of surgery, occupying but a very brief time, and of but momentary pain, it is sufficient evidence of the production of anæsthesia when the patient does not respond to a sudden call by the voice. The more profound state of anæsthesia is evinced by insensibility of the surface of the conjunctiva to the touch of the finger, and by change in the breathing of the patient to that of normal, deep sleep. The occurrence, during full anæsthesia, of dilatation of the pupils and of general sweating, are frequent, but not invariable phenomena of ethylization.

The bromide of ethyl, as most recently produced by our best chemists, differs materially in some of its sensible properties from that which has generally been described by chemical writers, and from that which I first had the opportunity of using.

Its odor is characteristic, but is less decided than that of ether or chloroform, and to most persons it is more agreeable. The article I now use leaves less evidence on the breath of the patient, and is soon dissipated from the apartment, and the odor does not remain, as does that of ether, on the clothing of the operator and his assistants.

The bromide of ethyl is said to be liable to chemical change by prolonged exposure to light, but I have kept daily, for about a month, exposed to direct sunlight, a specimen made by Wyeth & Bro., of this city, and can perceive no evidence of change in either its ordinary properties or its anæsthetic action.

The bromide of ethyl may always be used without danger, in the closest proximity to lights and to the actual cautery, as its vapor is not inflammable. If a few drops be poured into a tumbler, or other deep vessel, a lighted taper or a match is at once extinguished if immersed in the vapor.

I have used the bromide of ethyl in the surgery of two large general hospitals and in private surgical practice, under the most varied circumstances which could be required to test the merits of an anæsthetic. In my use of it in the most abnormal conditions of debility and shock of injury, in capital operations, through protracted periods of administration, in patients from early infancy to extreme old age, it has always been satisfactory and free from manifestations of danger. I express my conviction that it is practically the best anæsthetic known to the profession.

Writing Prescriptions in English.—The Legislature of California has passed a law compelling physicians to write their prescriptions in English, if so desired by the patient. This is a ridiculous law, and will, of course, be practically a dead letter.

Antiseptics in Ozæna.—There is an item of treatment and a tender morsel of cool comfort in the following communication to the *British Medical Journal* made by Lennox Browne: "I have, for a very long time, abstained from prescribing *carbolic acid* as a gargle or nasal douche; not only, however, on account of its danger, but also, because of its taste and *odor*, which are, to many persons, most objectionable." "In all cases of ozæna, of whatever kind, it is important to keep the passages as moist as possible, so as to prevent reincrustation between the periods of using the douche; and, for this purpose the interior of the nostrils should be well anointed with vaseline, containing about five grains of *iodoform* to the ounce."

FORMATION OF AN EYELID

BY TRANSFER OF LARGE PIECE OF SKIN, WITHOUT PEDICLE.

By HENRY D. NOYES, M.D.,

NEW YORK.

[Communicated to the New York Academy of Medicine March 4, 1880.]

The matter which I bring to the notice of the Academy is one of interest in surgical pathology. It is an instance of the performance of an operation first introduced into surgery in Glasgow, in the summer of 1876, by Mr. J. E. Wolfe. The case in which he operated was reported in the *Medical Times and Gazette* for June 3, 1876. In that communication Mr. Wolfe reported two cases of success, and a brief summary of the article is to this effect: In a man, for whom, upon one eyelid, he had performed the usual operation of skin grafting introduced by Reverdin, he afterward performed an operation in which he took large pieces of skin and formed a lower eyelid. He took a piece of skin, divided it into three pieces, the whole being two inches long by one inch in diameter, and the result was the formation of a satisfactory eyelid, and after the lapse of eight months it was found that no undue contraction had occurred. Not long after he had occasion to treat a second subject in the same way. A piece of less size was used, and this likewise turned out a success. These operations by Mr. Wolfe did not appear to attract much attention; but the report fell under the notice of Dr. Wadsworth, of Boston, who, having a case in which he thought it justifiable, he performed a similar operation, and reported it in the Boston *Medical and Surgical Journal* for December, 1876. In his case very much the same steps which were instituted by Wolfe were repeated, with this difference, that he took a single piece of skin, which measured two and a half inches in length by one and a quarter inch in its greatest width. His patient was in excellent health, and four months after the operation showed a satisfactory eyelid.

Other reported cases are to be found in the *Archives of Ophthalmology*, vol. viii., No. 1, p. 94, by Dr. Aub, of Cincinnati—two cases; also in *Klinische Monatsblatter fur Augenheilkunde*, vol. xvii., June, 1879, p. 213, by Zehender—three cases. Both cases reported by Aub were successful—one having been done by Dr. Corson and one by himself; and of Zehender's cases two were failures, and the third was a partial success. Dr. Zehender alludes to another case in which the operation was performed by Wharton Jones, an English surgeon, and although he gives an unsatisfactory account of it, one is led to infer from the reading that the operation was a success. These constitute all the published cases with which I am acquainted, and make a total of eight. I have heard of three other cases, none of which have been published. Dr. Reeve, of Montreal, did operations upon different eyelids of the same person, and they resulted in success. In another case the operation, I have understood, has been successfully performed by Dr. Abbott, of Buffalo.

The patient whom I propose to present this evening is not the first upon whom I have operated in this manner. I have undertaken it in four instances. Two of the four operations were performed under very unsatisfactory circumstances. The first patient was a woman, who had a small extent of cicatricial contraction of the upper eyelid, causing a moderate deformity; and while wishing to relieve her of the

deformity, I did not care to make a flap operation, which would involve some supplementary deformity. I therefore dissected out a piece of skin, with great care, from the arm, thinned it down with considerable vigor, adjusted it, and carefully secured it by means of stitches. I did not fasten it down by collodion, or by gold-beater's skin, nor did I stitch the eyelids to each other. The piece of skin sloughed, and the operation was a failure.

The second case was one in which I had had occasion to remove considerable tissue about the inner angle of the eye for the cure of an epithelioma. I removed nearly all of the lower lid, and nearly one-half of the upper lid. I was able to find tissue sufficient to provide flaps with which to fill up all the vacancy, except the gap that remained after removing the portion of the upper eyelid. I thought it a fair opportunity to try this method. I took a piece of skin from the arm, introduced it into the opening, and attached it with sutures, and took no further measures to secure immobility. Inasmuch as I had been obliged to use the actual cautery, in order to destroy some of the epithelial disease which penetrated into the orbit, I felt justified in ascribing the sloughing, which took place after the plastic operation, to the suppuration thus produced, but probably that was not the only factor. This case, then, proved a failure.

The third case came under observation within the last six months, and was in the person of a man who had an extensive epithelial ulceration about the left temple, which invaded the external commissure, and, destroying a considerable portion of the upper part of the lids, had lately caused ulceration of the cornea (1) and produced a sudden development of cataract. The man was suffering extreme pain. The amount of excision practised in order to remove the diseased tissues was large, and I was obliged to enucleate the eye. My purpose was to thoroughly seal up the orbit so that there should be no unpleasant discharge from it, hoping that by so doing the patient would suffer the least possible annoyance. He was a man advanced in years, the tissues were rigid, the skin was tight, and it was absolutely impossible to effect complete closure of the skin-wounds, even by the most thorough undermining and sliding the skin. In order to assist in closing the gaps, I brought down a flap from the forehead, in the ordinary manner. In turning down the flap, which had a wide pedicle from a vertical to a horizontal position, there necessarily occurs a deep wrinkle at the inside angle of the pedicle, and, in order to make the flap fit well, I was obliged to cut out a considerable piece of skin. It then occurred to me that the piece of skin removed could be used in patching the deficiency I was making in the forehead. The piece was triangular in shape, and measured about an inch and a quarter upon each side. It was accordingly put in position without sutures, was covered with collodion, as was also the raw surface which remained uncovered by the patch. That fragment of skin served to furnish a basis for granulation tissue. It did not slough throughout its thickness, but its entire epidermal surface sloughed, and the deeper tissue survived. That was the first case in which I secured any success in any attempt to imitate Wolfe's operation.

The last case is that of the boy whom I present to your inspection, Alfred Campbell, aged ten years, who first came under observation four years ago. He had been burned with kerosene. The burn extending over the upper part of the face upon the scalp, involved the entire forehead, reached down upon the cheeks and sides of the neck, and caused a shocking ectropion of both upper eyelids. Four years ago I operated for the rectification of the ectropion of the right eye. Inasmuch as sufficiently sound skin from the forehead could not be obtained, I made a flap from skin taken from the naso-buccal furrow, and the lid formed served a very good purpose. In December last the boy was taken into the Eye and Ear Infirmary in order that the ectropion of the left eye might be corrected. The deformity was not extensive; nevertheless, was sufficiently so to be annoying to himself and disagreeable to his companions, and I felt justified in attempting an operation for his relief. Having in the first operation used up all the available material upon the face with which to construct an eyelid, I thought that if any case was suitable for Wolfe's operation, this must belong to that category. I therefore dissected down the everted upper lid to the necessary degree, and when the wound was formed it measured an inch and a half in length by an inch in breadth, and to fill this space I dissected a piece of skin from over the ribs about 2½ inches in length by 1¼ inch in breadth, or, in exact measurement, 66 mm. long and 33 mm. wide, and of a semi-elliptical shape.

Some importance is to be attached to the manner in which the skin is removed. It is to be taken up entirely free from subcutaneous connective tissue and fat. When I began my dissection I found no little difficulty in removing the piece in that manner, but finally succeeded, and when taken up it looked very much like a piece of white kid-glove. The moment it was separate from its position it shrank to about two-thirds of its previous superficies. It was immediately placed in warm water for the double purpose of washing it off and preserving its temperature, and the wound being dried by means of bits of muslin, it was laid on and found to fit exactly, with the exception of the outer angle, where a small space still remained uncovered. I did not tuck the border under the edges of the wound, as was the fact in Mr. Wolfe's operations, but simply laid the piece upon the surface. Gold-beater's skin was placed over it, and collodion was carefully applied over the gold-beater's skin and the surrounding parts, and then the two eyelids were stitched fast to each other by three sutures passing between their edges. This was for the purpose of securing absolute immobility. A wad of cotton was then placed over the whole and secured by a bandage covering both eyes. The bandage was removed after a few days, but the gold-beater's skin and collodion dressing remained in place from December 12th, the day of the operation, until January 2d. During that time the parts remained entirely undisturbed. There was absolutely no suppuration, except what came from the conjunctival sac. There was no suppuration from beneath the flap, no pain, no swelling.

When the dressing was removed, by paring away the edges first, the edge of the flap was found presenting the appearance of normal skin, and I flattered myself that I had secured the vitality of the whole of the transplanted piece. But later it was found that the epidermis had sloughed from the centre of the flap. Granulation ensued on this surface, and finally the whole was covered with normal epidermis.

While success has followed this performance, it must be remembered very distinctly that the amount of shrinkage which occurs in skin thus treated is something extraordinary. The reduction in the size of this piece of skin has been not less than one-fourth

of the superficies of the whole, but it has resulted in giving a supple movable, and sufficient covering for the eye. The diagram shows the outline of the piece when removed, and the inner tracing the size it had seven weeks after the operation. The skin has but little sensibility; it has a pale yellow tint, and is only slightly stiffened, and he can now cover that

eye better than he can the other. The photographs represent the appearance as he looks downward and forward.

The interest attaching to this case is that which is something beyond the ordinary experience in surgical operations and pathology. It will seen by the statistics given that a number of cases have proved failures. In some of these instances failure is sufficiently accounted for, either by unfavorable local circumstances belonging to the operation, such as complication by other wounds, etc., and to unhealthy conditions of the patient. At the same time, if, out of fifteen cases with which I am personally acquainted, ten have proved successes, it is something very remarkable. While this operation is not likely to supplant the ordinary methods of plastic surgery in which a flap shall still retain its connection with the surrounding parts by means of a pedicle, it shows that the operation of skin-grafting may be employed upon a larger scale than has hitherto been regarded possible.

The following seem to be important factors in the success of the operation:

First. The piece of skin used must be dissected so as to be entirely free from subcutaneous connective tissue and fat.

Second. The piece of skin should not be secured in position by means of sutures, but by coaptation with gold-beater's skin, or such means as maintain absolute immobility during the entire process of union.

Third. There must be expected an extraordinary contraction when the piece of skin is separated from its surroundings.

An Epidemic in Virginia.—A disease which is called black measles has been prevailing extensively in Petersburg, Va., and the counties adjacent. It has of late caused a number of sudden deaths.

Progress of Medical Science.

Gangrene of the Lung treated by Incision. The high rate of mortality in gangrene of the lung suggests the possibility of relieving the condition by means of operative measures; and that by incision, which has been recently spoken of, seems to possess many advantages. Mr. S. C. Smith, of Halifax, England, cites the following as an example of this mode of treatment. A gentleman, sixty years of age, was attacked with pneumonia of the right side. It gradually grew worse, and developed gangrene of the lung. The matter expectorated was of two kinds: at one time thick, tenacious, and muco-purulent, but frequently thin, gray, and offensive fluid, which appeared to gush up into the throat, and was spit out in large quantities. This continuing, and there evidently being a large cavity in the middle lobe of the right lung, it was decided to relieve that organ by making an opening for the exit of pus. An aspirator-needle was accordingly inserted near the angle of the scapula to the depth of about three or four inches. No fluid escaped, but very bad-smelling air was drawn through the tube, a candle held opposite the canula caused the flame to blow to and fro during respiration, showing that a cavity had been reached. The canula being used as a director, a knife was inserted between the ribs, and by its side a pair of dressing-forceps was introduced, by means of which an opening could be made large enough to introduce a strong india-rubber tube, through which carbolic acid lotion was injected; this induced coughing, and about half a pint of fetid, grayish pus was ejected. The tube was left in, and the wound covered by a large pad of a dozen folds of coarse muslin wrung out of a solution of carbolic acid, which was ordered to be changed every three hours. For six days the expectoration was diminished, the fetor was less, and on the whole there was decided improvement. The discharge from the wound was offensive, although the cavity was washed out daily by means of a syphon; the water which escaped at these times was but little stained, so that the offensive odor was due rather to the sloughy condition within the lung than to a decomposition of pus. He had a relapse, and gradually sank and died. S. suggests this mode of treatment in cases where the bronchi are blocked up to such an extent as to prevent the free exit of pus, and when the patient is rapidly sinking, in order to give him the only chance of recovery that remains. —*Lancet*, Jan. 17, 1880.

Nerve-stretching in Tabes Dorsalis.—Dr Langenbuch, of Berlin, reports a case in which nerve-stretching relieved completely the shooting pains of tabes dorsalis, and at the same time exerted a remarkable influence on the other symptoms of the disease. The patient, a merchant, forty years of age, had suffered for several months from the affection, all the characteristic symptoms of which were well marked. The pains were very intense, and were but slightly relieved by sedatives. The left sciatic nerve was operated on first, as the pains were most severe on that side. When the nerve was laid bare, it was found to be somewhat swollen and of a reddish color; it was forcibly stretched and the wound was then closed with sutures and dressed antiseptically. When the patient recovered from the narcosis, he stated that the pain had entirely ceased in the parts supplied by the stretched nerve. The motor and

sensory paralysis resulting from the operation disappeared in a few days, but the pains did not return. The wound was healed, and twelve days after the first operation both the crural nerve and the right sciatic were stretched in one séance. The three wounds healed in a few days under antiseptic dressings. The effects of the second operation were similar to those of the first. All the pains ceased immediately and permanently, and the paralysis of motion and sensation lasted only a few days. When the patient made his first attempts at walking after the operation, he declared that he was again able to tell what there was under his feet. He rapidly regained the power of walking, and it was then unexpectedly discovered that the ataxic symptoms had also completely disappeared. As soon as he was able to walk tolerably well, he left the hospital, but soon afterward entered another hospital. Dr. Langenbuch sought him out there, and found him free from all ataxic symptoms and disturbances of sensation in the legs. He was able to walk about without a stick, and complained only of weakness and pains in the arms. Dr. Langenbuch thinks that in this case the primary seat of the disease was in the peripheral nerves. He believes that a rigid adherence to the antiseptic treatment is of the greatest importance in these operations in the nerves.—*Berliner klin. Wochen.*, No. 48, 1879.

Atropine in Spermatorrhœa.—Dr. Stephanides, of Carlsbad, has obtained excellent results from atropine in a case of profuse spermatorrhœa, in a patient suffering at the same time from advanced progressive muscular atrophy, and from commencing bulbar paralysis. As no source of irritation of the urethra could be discovered, he ascribed the spermatorrhœa to a relaxation and dilatation of the ductus ejaculatorius, dependent upon irritation of that part of the spinal cord where the nerves controlling the preparation and discharge of the semen take their origin. The affected muscles were so weakened that they were unable to hold back the semen, which, following the law of gravity, flowed into and through the urethra. As, moreover, the flow of semen was constant, it seemed fair to assume that the patient secreted more semen than a healthy man would; this phenomenon is analogous to the increased secretion of saliva occurring in progressive bulbar paralysis. Dr. Stephanides thought that under these circumstances the use of atropine, which is known to control the so-called paralytic salivation, as well as hyperhidrosis, was indicated, rather than the bromide of potassium. He accordingly ordered the patient to take every evening one drop of a solution of 8 ctgrm. of atropine in 8 grm. of distilled water (gr. 1½ – ʒ ij.). Under this treatment the spermatorrhœa ceased entirely in three days, but the remedy was continued for a few days longer, until dilatation of the pupils and irritation of the throat was produced. The spermatorrhœa made its appearance again in about two weeks, but again yielded at once to atropine administered in the same way.—*Schmidt's Jahrbücher*, No. 8, 1879.

Apomorphia in Croup and Acute Laryngitis.—The internal administration of apomorphia has been highly recommended by several German authorities in the treatment of croup, pseudo-croup, and capillary bronchitis. Dr. Smidowitsch, of Tula, reports four cases of croup and acute laryngitis, in which he employed the drug in this way, with very good results. In all these cases very large doses were given. In the case of a boy, 1½ year old, who was suffering from a severe attack of croup, from 6 to 7 ctgm. were given daily, for five days, while toward the end of the disease a dose of 4 mgm. could no longer be tolerated. The same patient suffered two and a half years afterward from a second attack of croup, in which croup-membranes were coughed up. This second attack also terminated favorably under the use of apomorphia, a teaspoonful to a teaspoonful and a half of a one per cent. solution of the drug being administered every hour. The second case reported by Dr. Smidowitsch was also one of croup, while the remaining two were cases of pseudo-croup, or acute laryngitis, with very tough expectoration. All these cases terminated favorably.—*Schmidt's Jahrbücher*, No. 8, 1879.

Antiseptic Treatment of Head Injuries.—Since 1860 Prof. J. A. Estlander has treated 341 cases of injuries to the head, not including those of the face. Previous to 1870 the old methods were followed; since that time Lister's antiseptic treatment has been in use. To render the results of these two epochs more evident, he has divided his cases into three groups: 1. Simple wounds of the integument. 2. Similar wounds with denudation of the cranium. 3. Such as were complicated with fracture of the cranium and lesions of the encephalon. He has omitted the cases where other affections caused sudden death and no treatment of the wounds could exert any influence. From this comparison it would appear that previous to 1870 simple wounds afforded less favorable results than those treated by the antiseptic method, but the difference is not very great. The wounds with denudation of the cranium, on the contrary, gave much more favorable results by Lister's method. By the latter the mortality fell to 1.5 per cent., whereas by the old methods it was 24 per cent. The author considers that this complication should no longer be viewed in the serious light which prevailed previous to the adoption of the new method. The difference is still greater in the third category, for, before 1870, he lost three-fourths of the cases which presented lesions of the bones of the cranium and of the brain, while by the antiseptic treatment he has saved five-sixths of them. This is still more remarkable, as the fractures of the base, where the antiseptic treatment cannot be placed in question, have furnished the same results during the two periods. It is true that the diagnosis of this lesion may have been occasionally doubtful, where death did not result, but the diagnosis has always been based on the same signs, and the errors it is fair to suppose have been equal. Several cases are related in detail to illustrate this method of treatment.—*Nordiskt Medicinskt Arkiv*, Vol. XI., No. 3.

Perforation of a Hydrocephalus through the Spinal Canal.—Magnus reports the case of a strong and healthy primipara with a breech and foot presentation. The foot was brought down, and the delivery continued till the breast had passed down so low as to permit of the disengagement of the arms. After numerous unsuccessful attempts to complete the delivery with forceps and cephalotribe, and the perforation of the hydrocephalic head, which still remained high in the pelvis, the author determined to open the spinal canal and pass an elastic catheter up through the latter as far as the brain, and thus evacuate the fluid. This attempt was crowned with success.—*Nordiskt Medicinskt Arkiv*, Bd. XI., No. 6.

THE MEDICAL RECORD:

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REMARKS ON DIPHTHERIA.

At this time, when diphtheria is prevailing in various parts of the country, and is assuming an epidemic and malignant type, any points bearing upon the diagnosis or treatment of the disease are of great interest to the profession. In this view it is safe to assume that the paper in the present issue by Dr. Billington, and the discussion upon it before the New York Academy of Medicine, will be very welcome to our readers.

Although it cannot be claimed that it contains anything strikingly original, it is, nevertheless, a very valuable contribution to the diagnosis and treatment of this dreadful disease. It is always well to compare notes and take a reckoning of progress made. Even if the latter is only such as extra experience has afforded in verifying old ideas, the results to the practical man are of the greatest possible value. So much has been written concerning the nature of diphtheria, and so many different methods of treatment have been advocated, that it would be exceedingly difficult, in presenting the subject in any detail, not to travel over ground already well beaten and track-worn.

Thus it is that our author comes to us with no startling announcement that a new specific has been discovered for the disease, but simply with the statement that additional experience has confirmed the views expressed by him four years ago. It will be recollected by the majority of our readers that these views were quite positive in the direction of the curability of the disease, even in many of its most malignant forms. The remedies used were those which had already enjoyed a good reputation, but their combination and methods of application were somewhat original. Substantially the same line of practice has been followed, and the good results which have been obtained will serve to make not a few converts to the doctrine upon which the treatment has been based.

The real interest to the paper will centre upon its practical character in the methods of treatment advised, and upon the faithful manner in which the cases have been reported. There can be no doubt that such cases were those of genuine diphtheria. A great many circumstances must be taken into account in summing up results—the character of the symptoms, malignancy of the type of the disease, and the variety and character of the remedies used. But, making all necessary allowances, it is impossible to resist the conviction that the remedies employed had a great deal to do with the results.

Perhaps, however, the greatest element of success is the faithful and persistent attention to details. In no disease is it more important to watch for bad symptoms and to fight them promptly and persistently when they show themselves. The attention to apparently trivial matters may often turn the tide of battle in favor of the patient. This point is strongly made by Dr. Jacobi, and will doubtless carry its due weight with all who are called upon to watch and to fight with desperate cases. It is not difficult to believe that the success of the cases related in the paper is more due to the manner of using the remedies than the remedies themselves. Such a belief will help, perhaps, to reconcile the difference in results which have obtained with other practitioners who have used the same ingredients, and will doubtless encourage them to insist more strongly than ever upon every detail of treatment as laid down.

The importance of an early recognition of nasal diphtheria, and the necessity for prompt and persistent syringing of the nares, is strongly urged, not only by the author, but by those who discussed the paper. No practitioner who has given the method a trial in an apparently hopeless case, will be willing to omit it in any subsequent and similar experiences he may have. In no instance will any single procedure give him more gratifying results. But like all other delicate manipulations, a certain amount of manual skill is quite necessary to do it properly.

The apparent contradictory propositions of the author that the diphtheritic membrane, although the source of the poison, can be allowed to remain for a time upon a given part without danger, can hardly be reconciled with the assertion that the superficial parts of the membrane are the only sources of infection. The explanation that the poison simply passes through the deeper portions of the membrane as through a filter, merely to be discharged upon the surface, is ingenious, but is hardly in accordance with pathological laws. It is very proper to consider the presence of these membranes always dangerous, and to get rid of them as soon as possible without producing undue irritation.

Even if there is no positive danger of direct ab-

sorption of the poison from the spot infected, as when the membrane is limited to the tonsils, there is a risk of the diphtheritic secretions contaminating the neighboring tissues, notably those of the posterior nares, and thus establishing a direct communication with the neighboring lymphatics.

It is proper to state that the author of the paper does not claim any originality in regard to the purely local origin of the disease. In fact several other distinguished observers have advocated that view long ago, and have published many striking facts in support of it. He is a strong advocate for the doctrine, and is at times too positive in his statements. We venture this opinion with the full appreciation of the force of the author's arguments to prove his position. The assertion that membrane is always present, whether the observer succeeds in finding it or not, will not be accepted by a large number of the profession. Nor will the probability be always admitted that in the so-called non-membranous diphtheria, the practitioner has in reality to deal with a case of malignant non-eruptive scarlet fever. Non-membranous diphtheria is a very exceptional occurrence, but its actual existence has been clearly proven by several competent observers. A knowledge of this fact may at some time or other be of great service to the practitioner, and may help him to explain the possibilities of general blood-poisoning from the start, entirely independent of membrane in the throat.

It is not, however, our purpose to do more than draw the attention of our readers to some of the more interesting points in the paper, and with this introduction we leave them to study the subject in all its interesting details.

THE BENZOATE OF SODIUM IN PHTHISIS.

Within the past six months considerable attention has been directed to the benzoate of sodium as a remedy for phthisis. Although the profession naturally looks with distrust upon any agent said to have a curative agency in tubercular disease, the strong advocacy of the claims of the salt in question by several leading men has invited serious discussion. From time to time we have noticed the reports, mainly from foreign sources, concerning the so-called efficacy of this drug. As might have been expected, the account of the results obtained are somewhat exaggerated and conflicting. The very hope that phthisis can be cured by a single remedy is enough to pardon the enthusiasm which has been infused into the discussion of the subject. It is hard to believe that the salt has any special effect upon the disease. We cannot afford, however, to ignore the statements of men who have good reputations, who are competent observers and conscientious practitioners.

Benzoate of sodium is not, however, a new salt. Although its reputation in connection with the treatment of phthisis transcends that for other diseases, it has long been known as a drug of considerable therapeutic value.

Among the first to call attention to it as a valuable article of the materia medica was Graham Brown (Archiv für exper. Path., vol. viii., p. 140), who found that it destroyed in diphtheritic fluids the power of communicating contagion.

Klebs (Prag. med. Woch., iv., No. 385) claims that the benzoate of soda is the best known antimycotic remedy for all infectious maladies, and has proved more efficacious as such than either quinine or salicylate of soda. It is not, according to his observations, a febrifuge. The average dose employed was two to five drachms per day. He finds it especially applicable to cases in which the blood-pressure is abnormally low. Valvular diseases of the heart, however, contraindicate its use. Inoculations with diphtheritic or tubercular material produce no effect, when followed by hypodermic injection of the benzoate. Finally, its administration on two consecutive days is said to have checked the progress of erysipelas.

Schüller (Deutsch. med. Woch., 1878, No. 11), observes the rapid fall of high temperatures, together with amelioration of local symptoms, in diseases following traumatism. Scrofulous affections of the joints are also said to be greatly benefited. He administers the drug in doses varying from two drachms and a half to six drachms.

Senator has reported twenty cases of acute, and twelve of subacute articular rheumatism, in which the benzoate was employed. In the acute cases excellent results were obtained, even when salicylated soda had proved useless.

Letzerich (Berlin. klin. Woch., 1879, No. 7) recorded twenty-seven cases of diphtheritis treated by this method. With only one exception, the success was complete. The drug was exhibited both internally and by local application.

Hoffmann (Berlin. klin. Woch., 1879, No. 11) has treated successfully twelve cases of diphtheritis, one case of erysipelas, and three of albuminuria. With regard to the cases of nephritis, the good results were ascribed to the increased elimination of nitrogen. This fact was previously noticed by Fürbinger (Deut. Arch. f. klin. Med., vol. xxi., p. 486), and Gäthgens (Ueber d. Stoffwechsel eines Diabetiker's, Dorpat, 1866).

On the 15th of September, 1879, Kroczak reported three cases of advanced phthisis treated with marked success by inhalations of a five per cent. solution of sodium benzoate. His article appeared in No. 37 of the Vienna *Medical Press*, and gave rise to much sensational newspaper comment. This appears to be the first mention made of the efficacy of this drug in the treatment of lung diseases.

Then followed Rokitansky (Wien. med. Presse, Oct.

18, 1879, with a report of cases in which the remedy was used. Finally, Klebs (Allg. Wien. med. Zeit., No. 1, 1880) afterward recommended the sodium benzoate, and benzoate of magnesium in phthisis. This author also extended the range of applicability of these drugs to other pathological conditions of the lungs. The treatment consisted of conjoined local and internal administration.

Guttman (Berl. klin Woch., No. 49, 1879) refers to thirty-one cases of phthisis where the benzoates had proved unavailing, and Wenzel reports, in the same number of that journal, ten other cases with a similar negative result.

Rosenfeld (Med. Corr. Blatt, Jan. 9, 1880) observed injurious effects of these inhalations, and warns practitioners against entertaining sanguine expectations of their general usefulness.

Prof. Halla (Deut. med. Woch. 1880, No. 7) also failed to obtain satisfactory results. He tested the efficacy of the drug in a large number of cases, always paying strict attention to the measures of precaution enjoined by Klebs. The results were invariably disappointing.

At Innsbruck a special committee of competent medical men was appointed for the purpose of investigating this subject. The report of this committee was quite unfavorable to the general utility of these inhalations in phthisis.

From these brief abstracts of the most important publications on this subject we are unable to deduce any convincing proof of the real value of this, the latest anti-phthisical remedy. Still, it is quite evident that the benzoates had an extended trial.

If experience realizes a tithe of the expectations which are entertained of its curative properties in phthisis, the profession can take courage in still fighting against the odds in this disease, and taking the chances for success, desperate as they are.

LEGISLATION ON THE SUBJECT OF COLOR-BLINDNESS.

THERE are at present no laws in this country compelling examinations for color-blindness; Dr. B. Joy Jeffries is, however, endeavoring to initiate legislation on the subject in Massachusetts, as well as in the national legislature. The railroad commissioners of that State have unfortunately reported that they do not think legislation is needed in the matter, but that private interest will be strong enough to cause the examinations to be made before long. They also recommend that the examinations be made by laymen, and consider such to be sufficiently expert. Against both these positions Dr. Jeffries has argued very strongly, and has shown that he has all the authorities of Europe on his side and against the commissioners. Dr. Jeffries would introduce an examination to test the visual acuteness and the sense of form. The examinations are to be repeated at annual or biennial intervals, and would be made by a regularly appointed medical officer. The matter still remains unsettled.

VACCINATION IN ENGLAND.

THE agitation in England upon the subject of compulsory and animal vaccination, has, at last, ended in a tolerably satisfactory manner. The investigations by the parliamentary committee have led to the following conclusions:

1. That the present system of compulsory vaccination is efficient and necessary, and should be continued.

2. That there is a remote possibility of inoculating syphilis with humanized lymph; but that, nevertheless, the old system of arm to arm vaccination is a good one, and should, as a rule, be adhered to.

3. That vaccination with calf-lymph gives also an efficient protection against small-pox, and that humanized lymph ought to be rejuvenated at regular intervals by the use of calf lymph.

4. That the public vaccinators ought to have a supply of calf lymph for the above purpose, and also for use upon those persons who object to the humanized lymph.

Experiments are to be undertaken to test the absolute and comparative value of calf-lymph as a protective against small-pox.

THE REGULATION OF MEDICAL PRACTICE IN MASSACHUSETTS.

THE bill to regulate medical practice in Massachusetts has received the endorsement of the majority of the medical profession in that State. The legislature is also favorable to it, and the prospect of its passage is very good. By its provisions every person who proposes to practise medicine in the State must pass an examination before a board of censors. This board is to be composed of representatives of the Massachusetts State Medical Society, the Homœopathic, and the Eclectic Medical Societies. The representation will be in proportion to the membership of the societies, and this will give a majority of the board to the regular profession.

Opposition to the bill comes from two sources, on the one hand, all the quacks, and, on the other, a few of the more conservative of the regular profession. These latter claim that the law will create an examining board whose standard of examination is likely to be low—certainly not so high as that of the Harvard Medical School; the bill, therefore, is, they say, an encouragement to cheap medical colleges. It also assumes, to a certain extent, that the regular profession constitutes a particular school of practice like the Homœopaths. And one of the results already of the present agitation is the proposition to have Homœopaths on the staff of the Boston City Hospital. It

is, finally, urged that the number of quacks driven away will be small, and the great benefits expected in this direction are illusory.

It is very doubtful if the sanguine hopes of ridding Massachusetts, or any other State, of quacks by law will ever be realized. The State of Illinois did something in this way, but things soon began to lapse back to the old condition. The very fact, however, that the strongest opposition to the law comes from the ranks of charlatanism and of the low and ignorant, is an evidence that it will accomplish some good. And, on the whole, we believe it will be found to have something of a purifying effect.

Reports of Societies.

THE NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 4, 1880.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 8 P.M., and the minutes of the previous stated meeting were read by the Secretary, DR. E. F. WARD. The Librarian, DR. LAURENCE JOHNSON, acknowledged the reception, since the last meeting, of 279 bound, and 8 unbound volumes; 1380 medical pamphlets, and a marble bust of Dr. J. Kearney Rogers, with pedestal, the gift of Mrs. Eigenbrodt. The thanks of the Academy were extended to Mrs. Eigenbrodt for her generous donation.

The Statistical Secretary, DR. FRANCIS V. WHITE, announced the death of Dr. Henry LeBaron Hartt.

BLEPHAROPLASTY IN WHICH THE EYELID WAS FORMED BY A PIECE OF SKIN TRANSFERRED FROM THE CHEST.

DR. HENRY D. NOYES exhibited a patient upon whom he had successfully performed the above operation, and made some remarks. (See MEDICAL RECORD, this number, page 344).

The case being before the Academy for discussion, DR. HERMAN KNAPP remarked that he had always thought, in all plastic operations, blepharoplasty in particular, that sloughing was in direct proportion to the thinness of the piece of enticle used; the less enticle the more probable the sloughing. The procedure reported, however, was somewhat different from that employed in many such operations, and the facts must be accepted. There were a certain number of cases upon record in which the flap united throughout its entire extent, without the least sloughing around the edges, and he thought that the indication would be—where there was no skin upon the face or head, taking this principle into consideration—to try this procedure, and that it was legitimate. The photographs were satisfactory, yet the report was made a short time after the operation. He could well imagine that a flap which had so little substance, almost epidermal, would shrink so as to leave but little. He thought that Dr. Noyes deserved great credit for the skill manifested in his cases, certainly in the one in which there was so much deficiency in tissue.

DR. FRANK H. HAMILTON alluded to the fact that plastic surgery was an old operation, and as to its application to blepharoplasty, he was not so sure that it was an entirely recent procedure. At all events, the records of surgery supplied a considerable number of reports of plastic operations which had proved successful, and in which large portions of integument had been removed from one part of the body to another having previously been completely separated from their original attachments.

It was a tradition that Tagliacozzi was in the habit of securing tissue for an artificial nose by first inflaming the integument of the nates, whipping it until it was thoroughly reddened, exciting a certain degree of erythema, and then removing the skin and applying it to the nasal appendage. He thought, however, that a good deal that was upon record concerning anaplasty was not well established.

But to the same class belonged those cases in which there had been a reapplication of a second portion of the nose, the phalanges of the fingers, etc., yet anaplasty from remote parts had not, as he believed, secured the confidence of surgeons in general. However, he was glad to see the subject survived, although he could understand that, ordinarily, the operation would prove a failure.

Dr. Hamilton asked if it was well settled that the thinness of the flap was essential to success, for he would have supposed different. It seemed to him that in the brief epitome Dr. Noyes had given of the cases in which the operation had been performed, he had not satisfactorily demonstrated that point.

DR. KNAPP remarked, with reference to Dr. Hamilton's statement, that he saw two cases of rhinoplasty in Leipsic, and there was also blepharoplasty of the lower eyelid, the absent part being supplied with tissue from the cheek, and the flap sloughed from one end to the other. The operator (Prof. Thiersch) thought the reason why sloughing occurred was because suppuration occurred beneath and lifted the flap, so in the next operation he punched holes in the flap to allow pus to escape, but no better result was obtained. The professor stated to Dr. Knapp that there was only one authentic case upon record of successful rhinoplasty without pedicle.

DR. HAMILTON referred to two cases under his own observation in which a portion of the end of a finger was completely separated and replaced, and union occurred; but in both instances the severed portion dwindled excessively, and was almost completely destitute of sensibility—in short, it was no gain to the patient. They were small portions of the extremities of fingers, not including bone.

DR. A. C. POST remarked that there was an essential difference between cases in which a portion of the body had been severed and then reapplied to the part from which it had been removed, where the tissues readily entered into each other, where severed blood-vessels were brought into contact, and where the circulation could be restored through the same channels, and those to which special reference had been made. The cases were not very rare in which parts of the body had been removed and in that manner caused to again firmly unite. He had studied carefully the operations by Tagliacozzi, and he did not think that he had made the transplantation of integument from distant parts without the attachment of the pedicle. Only tissue had been taken from the arm, the hand, the face, or the head, and numerous operations of that kind had been performed with more or less success.

With regard to the transplantation of flaps of integument from distant parts without the attachment

by pedicle, the question had been asked whether it was necessary that they should be thin, or whether considerable portions of cellular tissue and adipose would interfere with the success of the operation. We had something analogous in operation known as budding plants, trees, and shrubs. It was customary in treating plants by that method to use a very thin portion of bark, for it was well known that if much of the subjacent cortical tissue was left attached to the bark, it interfered with the success of the grafting.

Dr. Noyes remarked, with regard to the practical point whether the flap should be thin or should include some portion of the subcutaneous fat or connective tissue, that our only evidence was what had been obtained from the experience of Mr. Wolfe himself. In one of his operations, in place of taking a single piece of skin, he took three pieces. Of these, two were dissected thin, in the manner described, and the third, which was placed in the middle, was taken with more or less of subcutaneous tissue, and the third piece of skin underwent suppuration, while the others survived. Acting upon that hint, he had taken pains to reduce the skin to the greatest thinness possible, leaving the subcutaneous tissue entirely untouched.

Dr. C. E. Billington read a paper on the

DIAGNOSIS AND TREATMENT OF DIPHTHERIA (vid. p. 331).

Dr. A. Jacobi. Mr. President: There is a great deal to say upon the subject of diphtheria, but very little that is new. Thus, I also doubt my ability to bring much that is new this evening. Dr. Billington has reached the same conclusions he laid before us a few years ago, and they are exactly the conclusions which I had published some time previous to his reading his paper before the Academy on the occasion referred to. My first paper was written in 1860, and was the first upon the subject published in this present epidemic, which has lasted twenty-two years (*Amer. Med. Times*, Aug., 1860). I again had occasion to read a paper upon the same subject in 1868, at which time I read before the Medical Society of this county (*Jour. Obstetr.*, May, 1868). Finally, I read and published the article Dr Billington has done me the kindness to allude to in his paper this evening. It was printed in the February number of the *Journal of Obstetrics*, in 1875. He says he has to repeat the conclusions to which he arrived at the time he read his previous paper, especially with reference to treatment and its results, on which we so happily agree in every particular. He will remember that my conclusions were exactly the same that I reached from what I had seen, namely, that in a large majority of fatal cases of diphtheria death occurs because of mismanagement. That is true, particularly true of the worst cases. I believe, when we collect statistics, we should speak of severe cases only. I have in former times alluded to the fact that a well-known Paris author declared, as late as ten years ago, that every case of nasal diphtheria would prove fatal. The truth is, that, if a case of nasal diphtheria dies, it is usually the result of inefficient treatment or mismanagement. I must, however, at once admit that occasional cases of diphtheria prove fatal, no matter what you do; but those cases are so rare that I have in my own practice not seen one for a long time, and I have occasion to see a respectable number of cases of diphtheria every year.

I do not believe I have the right to discuss the subject of diphtheria at this time, and will therefore only allude to a few points suggested while listening to the reading of the paper. They are, perhaps, trifles, but, as the doctor has proved that so-called trifles are of the utmost importance, are all and everything in the way of treatment of diphtheria, I will consider myself excused for mentioning them. He is so correct in that statement that I will refer to only a few cases, in which I know that, from the time that decent cleansing and disinfectant treatment began the patients commenced to get well. You will notice, every one has noticed, that not much diphtheritic membrane may be seen in the throat, yet all at once immense cervical glandular enlargement will take place, particularly about the angles of the lower jaw. When that is seen, no matter whether any membrane is seen or not, you may be sure there is nasal diphtheria. It is not necessary to see the membrane; but, if you wait one or two days, you will have opportunity to see plenty of it. Whenever there is immense swelling below and behind the angles of the lower jaw, there is nasal diphtheria. It is a natural sequence to the fact that these glands are in anatomical connection with the numerous lymphatic ducts of the nasal mucous membrane, and their swelling shows that there is a direct poisoning from that locality. Now, when you commence nasal injections every half hour or every hour, not infrequently within twelve hours the glandular swellings will be reduced one-half, thus proving that not only poisoning takes place rapidly, but also elimination of the poison and recovery. I have seen that in many instances, and so, evidently, has Dr. Billington.

There is one point upon which I have insisted whenever I saw such a case in consultation, and that is this: the cases are left alone, frequently, at dangerous periods, and it is always urged by the parents, and also by the nurses, and frequently by the doctors, that the child must be allowed time to sleep. Now, those cases which get well under efficient treatment only, will sleep the sleep of death if they are allowed to sleep undisturbed. If allowed to sleep, they will die. The septic poisoning causes a tendency to constant sleep, do with them what you please. You may disturb them in any way, and they will remonstrate; but as soon as you cease they are off in a sleep again. To allow such patients to sleep is to allow them to die. Therefore, when there is such a dangerous case with septic symptoms, it is necessary to cure it within thirty six or forty-eight hours, or the patient is gone. Such cases must not be allowed to sleep through the day or night longer than the intervals between the times of using the injections or medicines as you have prescribed. It may be necessary to inject the nose every half-hour at the beginning, and continue to do that for twenty-four hours, when, perhaps, it may be required no oftener than once an hour. If such management is neglected, the case is lost; if adopted, the case will probably be saved. Now, I say this, not because it is anything new; Dr. Billington has said it, others have said it; but perhaps no one so urgently as he or I; but when practitioners will follow that treatment, there will always be statistical evidence in favor of cure.

These cases are dangerous for another reason. These children do not cry much; they are quiet patients; they do not give much trouble; but they will die, and therefore it is necessary to know them at once. When there is sepsis there may not be much fever. Such cases may run their entire course without a rise in temperature to more than 101 or 102 F. In the worst cases the pulse may be no higher than 70, 80, or 90, and the child is, apparently, not so very sick, is quiet, etc.; they are the worst cases, and

must be attended to in the manner mentioned, without delay.

A word with reference to the use of stimulants. Dr. Billington says that many cases require them, and many do not; but he has not told us which cases do, and which do not require their use. I should say that it is just these cases last alluded to which need stimulants—those which give any evidence of septic poisoning. A tablespoonful or two, in twenty-four hours, or two to three, looks like something for a child; but it is, in fact, but very little. An ounce or two may be given in twenty-four hours; even three, four, six, eight, ten ounces of brandy may be administered daily, and will do a great deal. But, in connection with this statement, I will simply refer you to what all have seen in bad cases of typhoid fever and other infectious diseases, and what passes as the popular opinion on the result of alcoholic treatment in severe cases of blood-poisoning.

I will refer to a case seen in consultation with Dr. Kinnicutt, and, if the doctor is present, he perhaps will give the details of the treatment. The patient was a little girl three years old, suffering from scarlet fever and diphtheria. Despite local and general treatment, she went down, down, her pulse became very rapid and small, and the septic symptoms in general increased. We almost despaired of saving the child's life. The alcoholic treatment was then begun in earnest, and she took from eight to ten ounces of brandy every day, and from the moment the alcohol was increased she began to improve and made a rapid recovery. These are the cases in which alcohol must not be omitted.

There is another point, and that is the reliance which Dr. Billington places upon lime-water. I know it is an old remedy. It is recommended for inhalations in laryngeal diphtheria (membranous croup), etc. Now, there is about one grain of lime in two ounces of lime-water, and in the quantity sprayed into the throat there is scarcely a trace. It is true that when diphtheritic membrane is put into lime-water, after six, eight, or twelve hours it begins to slowly disintegrate, and at the end of one or two days it will even be macerated. But the dose of lime introduced into the pharynx is very small, and when it does go there, it no longer is lime-water, but becomes carbonate of lime, and I fully believe it is inert, and might as well be replaced by something else.

So far as Virchow's definition of diphtheria is concerned, Dr. Billington will remember that Virchow does not exclude from the diphtheritic process the superficial cases, and that he classifies those in which the exudation is found upon the mucous membrane and those in which it is found in the mucous membrane as anatomically identical. He classifies both of them clinically as diphtheria, simply regarding them as different shades of the same disease. To this I have also directed attention, and have shown (*Obstetric Journal*, Feb., 1875), that the appearance differs as to whether the epithelial covering belongs to the cylindrical or to the pavement variety, and also as to whether the subjacent mucous membrane contains a large number of muciparous follicles, etc. Dr. Billington regards diphtheria as a local disease when in the beginning. For the last twenty years I have been in favor of assuming that at first it is a local affection, and that it became general from that locality. But I also said at that time, and say now, that there are cases in which the local manifestation of the disease does not exist. As, for instance, in typhoid fever, we have no single individual source of infection; there are at least two. The poison can enter the system through either the alimentary canal or the respiratory tract. Thus it is with diphtheria. It will be a local disease in the throat or nares from the beginning in most cases, but there are cases, undoubtedly, in which the general do precede the local symptoms, or are seen at the same time. I am positive I have seen cases in which the general have preceded the local symptoms, and as long ago as 1860 I called them cases of diphtheritic fever, and within two or three days I was able to find diphtheritic membrane. Undoubtedly, diphtheritic poison can get into the system through the immense lake of blood in the lungs, and I have no doubt that a few cases must be explained by the poison entering the system through that channel.

There is one other point to which I will briefly refer, and that is with reference to the diagnosis of follicular tonsillitis. I have not seen a case in which I could not introduce a probe into an old fistula whenever I had to deal simply with a local disease of the excretory duct of the tonsil. In many places, in tonsils which have been the seat of suppuration a number of times, it is very easy to run a probe in to the distance of, perhaps, half an inch or even more; and these patients are very apt to show white spots on the tonsils several times through the winter, and the question of diagnosis at once arises. No matter how thick the excretion is which points to the surface, you can always run a probe through it deep into the tonsil, and I think that is the best way to make a diagnosis at once. There is one other point, and that is, the doctor believes the mucous membrane is a desirable protection to the subjacent tissue. I had rather be excused from having any protection than be subjected to that kind. We must not forget that particles are rubbed off and will infect or will be inhaled, and there can be no doubt that most of the absorption takes place from the lower surface, the part of the exudation adjacent to the mucous membrane. Now, it is a fact that the diphtheritic membrane will stick thicker to the tonsils than to any other subjacent mucous membrane, and still these cases are the least dangerous. Why is that? It is because there is but little communication between the tonsils thus coated and the neighboring lymphatics. You may have diphtheria of the tonsils for two weeks, and they may be covered with exudation, and yet you may not see a single glandular swelling in the neighborhood. But, as soon as the diphtheritic membrane spreads and touches the neighboring tissues, there will be more fever, accompanied by poisoning and irritation of the neighboring glands, and poisoning of the entire system may arise from that condition. So far as the tonsils are concerned, I should let them alone when diphtheria invaded them; but, if I found such membrane anywhere else, I should remove it if possible. But certainly no one can be more alarmed by injudicious removal than myself, and I should rather wash and syringe for a long time than make a single ineffectual attempt to remove a membrane which is not perfectly loose. I do not wish, however, to claim your attention too long. I am afraid that every new paper or discussion on this subject has to repeat much that is so well known as to be commonplace.

Dr. Wm. T. White—The cases which I saw with Dr. Billington, Mr. President, were all genuine cases of diphtheria. I have used the same treatment in several cases in private practice, and, generally, with good results. I will mention only one case, and in that there was a variation from this plan. A young

la by twenty-two years of age, was attacked by diphtheria, and she was very persevering in the use of the spray. But finally the glands of the neck became so swollen, and the disease involved to such an extent that it became difficult for her to breathe and to take any nourishment. Dr. Learning saw her in consultation, and recommended that a dose of calomel consisting of twenty-five grains be administered. It was done, and in about one hour she was quiet and sleeping, the swelling began to subside, the fever abated, and she felt decidedly better. It seemed to me that the calomel was of great service in that case. At all events, seeing its good effect in the single instance, I should not hesitate to again use it, or take it myself, if in the same condition the patient was in at that time. As already stated, I have employed Dr. Billings's plan of treatment, and it seems to me that it is as good as any other.

Dr. J. H. Douglas.—Mr. President, the remarks made by Dr. Jacobi meet, in the main, all I have to say upon this subject. There is a simple method of application which I would mention, and that is something by means of which the washing can be kept up constantly, if need be, to remove the secretion which is constantly accumulating in the nares. In young children it is especially difficult to keep the parts perfectly cleansed by the apparatus more commonly employed, and I have been in the habit of attaching to the nozzle of a hard rubber syringe, say half a foot, of small rubber tubing, which can be easily introduced into the nares, and the child can be followed about without trouble and without injury to the nasal mucous membrane, and the nares can be washed out without hinderance. By this means a constant irrigation can be kept up, if necessary, with the greatest facility. With regard to the presence of diphtheritic membrane upon the tonsils and its importance: the tonsil is included in a thick, dense membrane, which is difficult to penetrate except by a sharp-pointed instrument, showing that its direct relation with other parts of the body is not very intimate. What communication there is must be through the small vessels at the upper portion of the tonsil, where they communicate directly with the posterior nares at the exact point where this secretion accumulates and where there are abundance of absorbents. My treatment for diphtheria has been to wash out thoroughly with warm salt-water, or lime-water, this region from the very beginning of the attack. In regard to lime-water I differ from Dr. Jacobi, for I think it is an agent of great value. Clinical experience is often better than theory. I use it not only for washing, but apply it to the tonsils and throat by means of cotton. But the membrane upon the tonsil is of the least trouble. The nasal discharge can be easily removed by the little arrangement I have mentioned, and in that manner I have been able to treat most of these cases successfully.

Dr. R. Taussy remarked that Virchow had shown microscopically that diphtheria of the throat was always, in every instance, a primary local affection, and he regarded that fact as one of high importance as bearing upon treatment. There must be a focus of entrance for the poison, and if that theory was correct, the most effective treatment would be by the local use of disinfectants. The main point was to disinfect, and so prevent septicemia.

He suggested that, by using the laryngoscope, membrane might be found, or gangrenous sore throat, in cases in which it could not be seen by ordinary inspection. The employment of antiseptics, it had been well shown, was most appropriate, and the only means of saving the life of such patients as manifested symptoms of septicemia. He did not believe that the membranes in diphtheria and croup were identical. Albuminuria was not necessarily present in all cases of diphtheria, as, for instance, diphtheria of the hand or arm, etc., but with diphtheria of the pharynx and larynx and the lymphatics in the neighborhood involved, it would be present. Dr. Lusky continued his remarks to considerable length, after which the Academy adjourned.

THE NEW YORK THERAPEUTICAL SOCIETY.

Stated Meeting, Feb. 13, 1880.

Dr. A. Jacobi, President, in the Chair.

HYOSCYAMUS AS A HYPNOTIC AND AN ANTISPASMODIC.

Dr. E. C. Seguin made a report which was divided into four parts: 1. A brief sketch of the history of our knowledge of the drug, and a summary of the conclusions and the views of physicians who have used it; 2. A relation of his own experience in testing the value of the drug as a hypnotic; 3. The relation of cases showing the power of hyoscyamia as an antispasmodic; and 4. Provisional conclusions respecting its utility and the best modes of administration.

The following were among the more important points noted in the first division of the report: The reliable preparations were made by E. Merck, of Darmstadt, and were two: 1. A colored resinous extractive, 87 a drachm, and 1 a white crystallized substance, 75c. a grain. The physiological effect of hyoscyamia was very like alcohol intoxication. It was a sedative to the heart, and was useful in convulsive affections. It was excreted through the urine. Reference was made to various writings upon the action of the drug, notably those of Lawson, of the West Riding Hospital, in the 6th vol. of reports, 1876. In the second division, clinical experience was given in the use of the drug as a hypnotic. It had been found most beneficial in acute and subacute mania. There was a singular unanimity of opinion with regard to the uselessness of the drug in melancholia. Dr. J. C. Shaw had favored him with the report of cases, and concluded by saying that he regarded it as a most valuable medicine, and certain in its action in acute mania, outside and inside of the asylum. He had used it in doses of one-fourth to one-half a grain of Merck's crystallized alkaloid. Cases illustrating its favorable effect were contributed by Dr. A. B. Ball, who obtained prompt results by the use of Keith's preparation; by Dr. F. P. Kinnicutt, who administered doses of $\frac{1}{4}$ of a grain of Merck's crystallized alkaloid twice a day in a case of delirium tremens; Dr. Andrew H. Smith gave $\frac{1}{4}$ of a grain of the crystallized alkaloid to a patient suffering from restless delirium and about to be removed to an asylum; by Dr. E. C. Seguin, who used hypodermically from $\frac{1}{20}$ to $\frac{1}{4}$ of a grain of the crystallized substance in a case of morbid dreams, with very satisfactory results. In the third division, hyoscyamia as an antispasmodic or paralyzing agent was considered, and the conclusion reached that it was a powerful though temporary antispasmodic. Dr. Seguin had used it in one case of paralysis agitans, and it was the only remedy which he knew had the power to do good in that affection. He also reported a case of rhythmical hysterical spasmodic hammering, prolonged for two

months, the patient sometimes striking 100 blows with the hand to the minute, which was subdued by doses of $\frac{1}{100}$ of a grain of the crystallized substance. A case of chronic chorea was contributed by Dr. R. W. Amidon, in which he used $\frac{1}{16}$ of a grain of the crystallized substance hypodermically, with good effect, giving the patient quiet, which he had not had for eight years.

Provisional conclusions.—1. It acted upon the pupil as a mydriatic.

2. It reduced the pulse gradually and increased arterial tension.

3. It checked body heat.

4. It produced hallucinations and delirium.

5. Its use was occasionally attended by a rash.

6. In large doses it produced sleep, and something like paralysis or paresis, and might induce retention and dysuria.

7. Theoretically, it was indicated in mania attended by restlessness, delusions, and suspicions, and in insomnia and convulsive affections.

8. It had been of special service in acute or subacute mania, insomnia, and those cases characterized by mischievous delirium.

9. It induced sleep more certainly than chloral, and without being followed by bad effects.

10. In paralysis agitans it could do what no other remedy could do.

11. It was a diuretic of no mean power.

12. The curative power did not seem to be great.

In acute chorea its use may play an important part.

Mode of administration and doses of.—It could be given in small doses with ease hypodermically. The doses were from $\frac{1}{30}$ to 1 grain of the amorphous, and from $\frac{1}{100}$ to $\frac{1}{25}$ of a grain for hypodermic use. Distinct effects might be obtained from $\frac{1}{100}$ of a grain. The following formula was given for hypodermic use:

℞. Hyoscyamia (Merck's crystallized)....gr. i.
Glycerine,
Water.....āā ℥ 100.
Pure carbolic acid.....gtt. i.

Each minim contains $\frac{1}{200}$ of a grain. Tablets containing $\frac{1}{50}$ of a grain were convenient for use by the mouth.

The report being before the Society—

Dr. E. R. Squibb remarked that, although not in the way of acquiring experience in the clinical use of the drug, he felt that he could support all that Dr. Seguin had stated. It had been used in several insane asylums, though generally not as a curative agent, but as a chemical restraint. He had only one suggestion to make in addition, and that was with regard to the same effects produced by different sized doses. He had some testimony that the amorphous substance was about as good as the crystallized alkaloid of Merck. In speculating upon what might be the cause of the difference in size of doses that had been found efficacious, he had been led to think that the difference in result had been produced by the difference in the *alkalinity* of the secretions with which the drug came in contact. It was easily split up by alkalies, so loosely was it crystallized, and therefore rendered inert in a great measure by their action. It was possible, as a matter of speculation, that that was one of the causes why different doses were required to produce a desired result. It was one of the most unreliable of drugs when put into the stomach, and he had been led to believe that that fact was due to two causes: 1. Because of the difference in the alkalinity of the secretions found in the stomach; and 2. The influence exerted by the digestive processes of the stomach. It was well known that many of the alkaloids were loose in their molecules, and hyoscyamia the most so of all, and therefore the experimentations of the committee in the way of hypodermic injection of the drug were most important. The drug, when put into the stomach, must, he believed, be very unreliable, because of the nature of the secretions with which it came in contact. Dr. Squibb thought that Merck's preparation was a chloride. Both the crystallized and the amorphous form were SALTS of hyoscyamia and not alkaloids. So far as he knew, Dr. Kempster, of Oshkosh, Wis., never administered the salt by the mouth; and Dr. Gray, of Utica, also stated that when the system did not respond to it when it was put into the stomach effects had readily been produced when it was used hypodermically.

Dr. Seguin remarked that his preference was for the hypodermic method.

Dr. Squibb further remarked that Dr. Kempster believed that hyoscyamia did not produce sleep by a narcotic action, but by abstracting the condition which prevented sleep. It frequently produced quietness without producing sleep, and when sleep followed it was because bad dreams and delusions, etc., were removed, and thus the patient allowed to go to sleep.

Dr. Andrew H. Smith remarked that he had taken $\frac{1}{30}$ of a grain for the purpose of studying the effect of the drug. Taken upon an empty stomach on going to bed, it produced great drowsiness, dryness of the throat, sleep was not continuous, and on the following morning he had some nausea, disinclination to eat, and a general feeling as if a dose of morphine had been taken. There was also some difficulty in the power of accommodation.

Correspondence.

CURING CATARACTS BY ELECTRICITY.

To the Editor of The Medical Record.

Sir:—I have noticed in your journal two paragraphs containing something like a sneer at me for having published in *The Churchman* accounts of remarkable cures of cataract by means of electricity. I have also been notified by a committee of the medical fraternity of this city that they wish me not to publish accounts of such cures in the future. This message was sent to me through Dr. Neftel, who performed the cures I refer to.

My answer to the medical committee is that I shall continue to publish the astounding cures which Dr. Neftel is accomplishing every week. I am publishing *The Churchman* in the interests of its readers; and the gratitude of those who, having acted on the notices I have already published, have received their sight again, is a sufficient justification for me. I only wish that I could find lightning strong enough to remove the scientific (or unscientific) cataracts from the eyes of the eminent physicians and oculists who have thus attempted to dictate to me what I shall publish. But the blindness of those who *will not* see is both more obstinate and more hopeless than that of those who cannot see.

I am sure, however, that I may say to you, and through your columns to your thousands of readers,

that score by last announcement Dr Noftel has performed several cures more wonderful even than the first. A distinguished lady of this city, now eighty years of age, has within three weeks been cured of a cataract so that she can now thread a needle with ease. A gentleman from Baltimore, who some years ago had one eye removed because of glaucoma, had become hopelessly blind in the other eye with the same disease. No "oculist" would operate upon it, for there was no chance of success, and the unfortunate man could only anticipate a life of blindness and almost intolerable pain. The notice in *The Churchman* induced him to put himself under Dr. Noftel's care about a month ago. He is now returned to Baltimore with his sight *perfectly* restored, so that he sees the minute-hand of his watch, the texture of his clothing, etc. Of course, he is entirely free from pain, and, moreover, while he had been unable to sit up on account of debility, he has walked day after day from Forty-eighth Street to Broome Street.

Do you not think such things as these require that we editors hasten to publish them to the world?

Very truly yours,

EDITOR OF THE CHURCHMAN.

[We sympathize with our esteemed correspondent in his difficulties. It seems to be a matter of conscience with him that he should publish the remarkable cures to which he refers. No one must deny him his right to do so. It was certainly very improper for a medical committee, or for any number of ophthalmologists, to dictate to him the course he should pursue. Their want of respect for his opinion on the treatment of cataract was unworthy the liberal profession of medicine. The men who, according to our esteemed correspondent, will not see, are evidently the oculists, who must long ago have fallen into the traditional ditch as unworthy leaders of the blind. Far from blaming the editor of the *Churchman* for the course he has pursued, the profession at large should feel under the greatest obligations to him and to Dr. Noftel for calling public and professional attention to this important subject. As reports of future cures are promised, it is to be presumed that they will be furnished from a properly authenticated source. In the mean time we ask the profession to suspend judgment against the oculists, and diligently read *The Churchman*.—ED.]

DISPENSING WITH DRUG STORES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Some physicians are already, in a quiet way, helping to settle the "physician and druggist" question. They are doing this by purchasing large amounts of the preparations made by wholesale and manufacturing druggists. Many of these firms now have lists of carefully prepared prescriptions, which cover a very extensive range. With a supply of these, the physician can become, to some extent, his own druggist. This may appear to be rather beneath the professional dignity, nevertheless its practical workings are satisfactory, and may benefit both physician and patient. It is in reality only a kind of reversion to an ancient custom; yet, there is a great deal of difference between the old fashion, when the doctor weighed, and measured, and mixed his own prescriptions, and that of simply handing the patient a bottle of artistically prepared pills or an enticing elixir. And there is no reason why he should not give the preparation at once, if he has it, instead of sending his patient to a druggist, where there will be fifty per cent. more to pay.

Another plan that has been strongly recommended is that of co-operative dispensaries. Here several physicians unite, buy a supply of drugs, and hire a druggist to put up their prescriptions at cost. It is doubtful if such a plan could be made extensively successful, but it has been proved practicable in some places.

We do not wish to express any unreasonable prejudice against druggists, in referring to the above measures. Many of them, no doubt, act as fairly as possible in their relations to the doctor and his patient. Their expenses are often large, and the great competition divides up their trade to an injurious extent. But counter prescribing and exorbitant charging prevail much more than they ought to do, and any measures that will legitimately lessen these evils should be encouraged.

Very truly yours,

PRACTITIONER.

ABUSE OF MEDICAL CHARITIES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The rural practitioner knows something of the abuse of medical charity in New York City. Not long since a fashionably dressed lady called at my office for treatment for a complaint which she said she had received advice and medicine for at the Northwestern Dispensary for the last four years, free of charge. I was greatly astonished at this, and asked her to explain how she got it. "Why, I went there, and they asked what ailed me, and treated me—that's all." Now, this lady owns real estate and also personal property here to the amount of at least three thousand dollars, and, moreover, she had just paid seven hundred dollars cash for a business for her son. I have reason to know that the above are *facts*, and yet this lady for four years has been the recipient of medical charity at the Northwestern Dispensary.

Respectfully yours,

REGULAR.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The two communications of Dr S. Seabury Jones and of Dr. Alfred L. Carroll (issues of February 14th and March 6th) are of especial importance to the medical profession as showing how much of the mischief resulting from the so-called medical charity is due to those of our own household. It is much to be deplored that both gentlemen have hitherto refrained from making these grievances, detailed in the MEDICAL RECORD, public property, inasmuch as such abuses as are described concern not only these gentlemen individually, but the entire medical profession, and it is equally to be deplored that the names of the physicians and of the hospitals should be withheld, from a foolish desire to "avoid hurting any one's feelings."

The statements alleged in these two letters are presumably correct, and, if so, the physicians guilty of such misconduct should be exposed as unworthy of professional recognition and unqualified to practice medicine, and the hospital or college which employs them should be proved undeserving of support either from the laity or from the profession. Give us, then, the names. Statements like the ones contained

in the letters should not be suffered to pass unchallenged, because it affects the good name of the entire profession to have any one of its members under charges of such atrocious misconduct without a chance of punishing the guilty ones.

One point in Dr. Carroll's letter I trust I shall be excused for commenting upon. He complains "that 'out departments' and clinics are made to conduce to the pecuniary profit of some of the officiating staff, where inquiry has shown that the patient is not in destitute circumstances, but has not been pushed to the inquisitorial extent of ascertaining whether the case were under treatment or not."

Let me ask what good reason is there why the attending physician at an out department or clinic should not profit pecuniarily by those cases which can pay him a fee? The object of the physician in seeking a position in hospital, dispensary, or any similar institution is twofold: first, as regards opportunity for studying cases; second, as regards his personal advancement through his connection with the institution. Moreover, he does not propose to give his time or services *gratis* to such as can pay him a fee, though he is willing to do so for those who cannot, upon condition that they shall give their *quid pro quo* in some other way. He is, I believe, entitled to get a fee, if he can, out of those who can pay, if such people come to his clinic to consult him.

I know that in the miserable system which passes current among us as medical charity, nearly, if not quite all of the charity (?) is done by the doctor; but then, as he seems to like that sort of thing, I suppose no one ought to complain for him. Surely, however, if he is willing to give his time and knowledge to the service of the charitable institutions which is willing to employ him for nothing, *so far as they are concerned*, it is scarcely fair to upbraid him for demanding a solid return for his services from those who can pay him for them.

I am, dear sir, very truly yours,

F. R. Sturgis.

16 West Thirty-second Street,
New York, March 16, 1880.

AFFECTIONS OF THE EYE FOLLOWING USE OF CHLORAL.

To the Editor of The Medical Record.

Sir:—In response to a question by your correspondent, Dr. G. H. Fellows, Haverhill, Mass., as to whether or not chloral has ever been known to produce any trouble with the eyes, I have to state that last year there came under my care a naval officer in the later stage of consumption, who, from excessive coughing, was unable to sleep at night. I found that opiates produced in his case great irritability of the stomach. On one occasion I gave him, on his retiring to bed, ten grains of chloral to be once repeated during the night. The effect was magical. The cough was relieved greatly, and patient slept very well. Of course, I pursued the treatment. On the second morning patient complained that the chloral was affecting his eyes, which, he said, was always the case when he took it. There was some injection of the conjunctiva and a little swelling of the eyelids. I repeated the medicine again that night; but next morning the engorgement of the conjunctiva was so great that I discontinued it. The trouble with the eyes immediately passed away.

On several subsequent occasions I was obliged to repeat the remedy, and always with a similar effect. There was never any sign of impairment of vision.

Respectfully,

L. Austine Brown, M.D., U.S.N.

U. S. F. S. Pensacola, Panama, U. S. C.,
March 2, 1880.

[This communication comes rather late for the discussion, but due allowance is made for the distant residence of our correspondent.—Ed.]

POSTURE IN THE TREATMENT OF INTESTINAL COLIC AND ILEUS.

To the Editor of The Medical Record.

Sir:—In Dr. F. H. Hamilton's recent paper on "Posture in the Treatment of Intestinal Colic and Ileus, with a Consideration of the Pathology of Spasmodic Colic," he writes: "In its application to spasmodic colic both the method and the explanation are believed to be new. My attention has been called to the fact that some one has written very recently on the value of posture in the treatment of colic; but I have not seen the paper, nor do I know the name of the author, nor am I informed that the paper was published before the publication of my paper on hernia, in which the views now expressed were foreshadowed. Of course, this is a matter of no consequence to me or to the world, but I did not wish to be suspected of appropriating the suggestions of others and of offering them as original with me."

It was unnecessary for the accomplished author to pen the last paragraph which I have quoted, since "the rich man does not need to borrow;" but his paper will doubtless have the effect of calling the attention of the profession to the great use of posture in the treatment of disease. We are accustomed to think of a sick man as on his back or side in bed, almost a fixture, whereas his relief may depend in no small degree upon the prone, perpendicular, or inverted position. In a case of strangulated hernia which I asked Dr. Hamilton to see several years ago, his suggestion of inverting the patient while under ether was followed by reduction.

There is in the *American Journal of Medical Sciences* for January, 1874, a paper which I wrote "On the Uses of the *Knees and Elbows Position*," including the "all fours" and "*a la reche*" posture, in which elevation of the pelvis is recommended as follows:

"For the replacement of hemorrhoids and rectal prolapsus, the advantages of this position are at once apparent, and since the warm air of the intestine tends toward the anus when the patient is on knees and elbows with elevated pelvis, this posture suggests itself as useful in cases of *colic connected with excess of intestinal gas*." I have used this method with apparent benefit both in colic and constipation, and, in the paper referred to, related a case of rectal stricture which occurred in my practice in 1867, in which the same method was of service. "For the purpose of diminishing the purulent discharge, I concluded to wash out the intestine with a solution of carbolic acid. In using a long elastic tube I found it difficult to introduce it satisfactorily, but placing the patient on his elbows and knees, the tube was passed far up the bowel and the solution poured into it from a small pitcher."

One word with regard to the genu-pectoral, or knee-

breast position, which we have referred to in the journals. This position is a *necessity*, and if any one doubts my assertion let him kneel upon the floor and endeavor to touch the same surface with his breast at the same time. The accomplishment of this may be termed a *feat*, since only few can perform it, for the head cannot, as a rule, be sufficiently extended to permit the breast to touch the floor. With regard to the atmospheric pressure which is said to dilate the vagina when a woman is placed in the so-called genu pectoral position, and which idea of atmospheric pressure is, I think, unscientific and erroneous, how is it that the air rushes *out* of the rectum, if it rushes into the vagina when the hips are elevated? As we were taught in our philosophies, we must, I think, still believe that the pressure within and without the body are equalized, else would the abdominal wall collapse against the spinal column, or burst outward anteriorly. The apparent atmospheric pressure is, it seems to me, caused by the rushing of the air into the space produced by the falling forward of the viscera in consequence of gravity.

I may diverge one step further in conclusion. Allied to the effort to be secured from posture, is the mechanical aid which may be derived in introducing the cylindrical speculum, in some cases where the vaginal walls do not easily yield, by causing the patient to exhale forcibly. This removes the downward pressure of the intestines and facilitates the introduction of the instrument. Respectfully,

F. A. BURRALL, M.D.

48 WEST SEVENTEENTH STREET, N. Y.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 14 to March 20, 1880.

FINLEY, J. A., Capt. and Asst. Surgeon. Having reported in person at these headquarters, assigned to duty at Fort Adams, R. I. S. O. 41, Dept. of the East, March 15, 1880.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 20, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
March 13, 1880.	0	4	43	2	121	32	0	0
March 20, 1880.	0	5	28	6	93	38	0	0

SIR THOMAS WATSON ON THE NATURE OF COW-POX. —Sir Thomas Watson has for some time been an advocate of the theory that cow-pox is not small-pox inoculated in the cow and there modified in its course, but that it is a separate disease generated, perhaps, by the inoculation of grease from horses. In a recent letter to the *British Medical Journal* he acknowledges his error on this point. It may be presumed, therefore, that he adopts now the more prevalent view that cow-pox is the same disease as small-pox.

ANOMALOUS CASE OF NEPHROTOMY. — At Guy's Hospital Mr. Clement Lucas recently removed a suppurating kidney from a man aged thirty-six. The Bigelow method was adopted and antiseptic precautions were employed. At last accounts the patient was considered almost free from danger. The man had had a purulent discharge through the loin for six years.

THE PREVENTABLE DEATHS IN AMERICA are estimated to be over 100,000 annually. The preventable cases of sickness are about 150,000.

TRICHINA IN SWINE. — In Prussia, in the year 1878, there were 2,524,105 pigs examined for trichinæ. About one in every 2,000 was found to contain the parasite. Of American hams 865 were found infected, but all the trichinæ were dead. Fifteen outbreaks of trichinosis came under the notice of the police in Berlin.

SICK-ROOM COOKERY. — One of the teachers in the Edinburgh School of Cookery has been giving some practical demonstrations of sick-room cookery before the Edinburgh medical students. The preparation of beef-tea, arrowroot, bread-crumb pudding, gruel, custard and other articles of diet was shown. Much interest was manifested by the students.

HEALTH OF NASSAU. — The report that there is or has been yellow fever at Nassau is officially contradicted by Dr. Frederick Duncombe, Chairman of the Board of Health.

EXPERIMENTS WITH DISINFECTANTS. — Dr. George M. Sternberg states, as the result of certain recent experiments with vaccine lymph, that exposure for six hours or more to an atmosphere of sulphurous acid gas, chlorine, or nitrous acid gas is a reliable method of disinfection.

MEASLES is spreading throughout the Southern States; the mortality from scarlet fever is growing less in the same regions.

In England during the past six months the mortality from measles has been unprecedented. In the last quarter of 1879 there were 3,607 deaths from the disease, being an increase of 2,118 upon the corresponding period in 1878.

MINISTERS MAKING DOCTORS—WHY TWO METHODIST CLERGYMEN WERE PUNISHED BY THEIR CONFERENCE. — The New York *Times* of March 20th, says: "Annually there are turned out from the University of Pennsylvania and the Jefferson College (representing the old school of practice), and the Hahnemann, (the new school) about 500 doctors. Some bogus medical colleges, with high-sounding titles, have sprung up here in consequence of the high standing of the regular colleges. One of these has been discovered in the Philadelphia University of Medicine and Surgery, where diplomas could be had upon the payment of a small amount of money, and the applicant given the right to begin the practice of medicine at once. This institution was managed until a few years back by Dr. William Payne, who figured extensively in the George O. Evans case. He closed the place out to a party of Methodist ministers, who preached on Sundays, and ran the college during the week. The Rev. T. B. Miller was Dean, the Rev. William Major, Secretary, and the Rev. W. V. P. Ingraham, President. These men were all well known in the Philadelphia Conference, and their

standing in the Church served their purposes well in leading many persons to become students at their college. Two weeks ago, John Norris, of the *Record*, of Philadelphia, called at the college, and paid Dean Miller $25, in return for which he received a certificate entitling him to begin the practice of medicine immediately.

"Then the exposure began, and has been carried on since with unremitting energy. It was developed that the charter under which the institution operated was repealed by the Legislature in 1872, but this has not deterred the Faculty from issuing diplomas. Men who had attended at this place only four months had been given diplomas. Among these was Frank Gratton, who will be remembered as a witness in the Latroumeille murder trial at Albany, in June, 1879. He had a diploma from this college, but was only here a short time. While all these flagrant violations of the law have been shown, and the evidence has been at hand, the District Attorney of the county has seen fit to allow this institution to continue its operations. The Methodist Church, however, took up the fight against its ministers, and the Annual Conference, which adjourned last night, appointed a court to try the Dean and Secretary of the bogus college. Both men were tried, and the result was that Dean Miller was expelled from the Church and the Conference, and the Rev. Mr. Major was suspended for one year."

The Contagious Diseases Acts in England.—A select committee of the House of Commons has been lately appointed to continue the inquiry into the workings of the contagious diseases acts. The committee consists of nearly the same members as those of last year. The investigations, as far as they went last year, were, on the whole, favorable to the working of the acts.

Professor S. D. Gross has just been elected President of the Board of Trustees of the Pennsylvania Dental College.

Doctors in Parliament.—According to the correspondent of the *Louisville Medical News*, there are nine medical men who are candidates for election or re-election to Parliament. Dr. Andrew Clark, Dr. Lyon Playfair, Dr. Farquharson, and Dr. Cameron are among the most prominent. Mr. Ernest Hart has been invited to stand for a large metropolitan borough, but has refused.

Dr. James G. Hyndman, one of the editors of the *Cincinnati Lancet and Clinic*, has been elected to the position of Professor of Medical Chemistry and Physics in the Medical College of Ohio. Dr. Frederic Kebler has been appointed Lecturer on Pathology in the same institution.

The Union Medical College is the name of a new institution which is to be organized in Chicago. It is to include on its Faculty representatives of all the schools and pathies.

The Bogus Medical Colleges of Philadelphia have lately had a stirring up at the hands of the local press. Reporters interviewed the Dean of one of the colleges, assuming to be anxious to purchase diplomas. They were offered one for $100, and as the Dean had three charters the applicants were allowed their choice. They were also furnished with a set of lecture-course tickets, and were instructed how to write a prescription. They left, telling the Dean that he would hear from them again in the morning, and so he did, as a full description of the performance was published in the next day's *Public Record*. A number of attempts have been made to abolish these bogus colleges, but without success.

Inhalations of Lime-vapor in Diphtheritic Croup.—In an interesting letter from Dr. J. M. Cummins, of Larned, Kansas, on the treatment of diphtheria and diphtheritic croup, he states that he has had very uniform success with the lime-vapor bath. The method which he follows is original with him, although it is a well-known one with others. He puts a piece of unslaked lime into boiling water and conducts the vapor so that the patient not only inhales but is enveloped in it. This method of obtaining the lime-vapor is the only practical one, unless atomizers are used, since slacked lime itself when put in boiling water is not carried over in the steam at all.

Dr. Cummins's experience leads him to believe that diphtheria is a disease which has a local origin in the throat. He has found that early local treatment with, preferably, liquor ferri persulph. will sometimes cut short the disease by preventing constitutional infection. After an application of the liq. fer. persulph. the membrane, "like the cow the old Deacon kicked, curls itself right up." Dr. C. employs the usual constitutional remedies of iron and chlorate of potash.

Sloan, Wm. J., Colonel and Surgeon, U. S. Army, Medical Director Dept. of Dakota. Died at St. Paul, Minn., March 17, 1880.

The Lying-in Hospital at Vienna.—This enormous institution is a department of the general hospital of the city, and is in three divisions. The first, under Professor Carl Braun, is frequented by physicians who go to Vienna to study; the second, under Professor Spaeth, is attended by university students; the third is entirely devoted to the instruction of midwives. More than 10,000 women are delivered in the course of the year.

Twelfth Annual Report of the New York Orthopædic Dispensary.—The total number of cases treated in the nine months ending October 1, 1879, was 1,031. Of these 248 were cases of Pott's disease, and 274 of hip-joint disease. Knee-joint diseases, infantile paralysis, lateral curvature, and club-foot, make up a large proportion of the remaining diseases. The expenses of the dispensary and hospital were $7,086,75.

The American Drug Trade.—There was in 1879 an increase of 2¼ per cent. in the amount of druggists' goods entered for consumption—an increase proportionately greater than that of 1878.

A number of drugs which used to be imported are now being produced in this country to a sufficient extent to supply the demand. Among these are mercury, borax, bicarbonate of soda, citric acid, carbolic acid, and the ammonia salts. The amount of opium imported in 1879 was 278,554 pounds, which is 70,000 pounds more than in 1878.

The importation of quinine was 228,348 ounces, against 17,549 ounces in 1878. After the passage of the act repealing the duty on quinine 110,000 ounces were imported, so that the repeal did not affect the importation for that year.—*Druggist*.

Annual Report of the New Jersey State Lunatic Asylum, at Trenton, 1879.—This asylum treated during the past year 655 patients, and, at its close, had 506 under its care. The per cent. of cures was 27, the death-rate was 7 per cent. The superintendent urges the necessity of provision for the early treatment of the insane.

Fourth Annual Report of the State Asylum for the Insane, Morristown, N. J., 1879.—There were 480 patients in the asylum at the close of the year. During the year 104 were admitted, 34 discharged cured, and 30 improved. This gives a little over twenty per cent of cures. The asylum will accommodate 500 patients, and is one of the few that are not overcrowded. The medical staff consists of a medical superintendent and two assistants. The superintendent recommends the study of physiology as an aid to mental therapeutics.

The Pellagra in Italy is devastating the population to a most alarming extent, nearly 100,000 being affected by it. It prevails throughout almost one-half the provinces, and is causing a mortality of over 7 per 1,000 of the total population. It is more destructive than the cholera epidemic that ravaged France in 1884-5.

The Oxytocic Properties of Viscum Album.—Dr. W. P. Manning, of Shepherdstown, W. Va., writes: "Sir: In your issue of March 6th, I notice an article by Dr. C. L. M., of South Carolina, in which mistletoe had been used for the purpose of abortion with the desired effect.

"I am not surprised at this communication, for that viscum album, as a fluid extract, has decided and superior oxytocic properties I am convinced from frequent and repeated trials; having used it in post-partum hemorrhage with the most pronounced and gratifying results. Menorrhagia and Metrorrhagia, not dependent upon organic disease, are—as far as my experience goes—better controlled by this remedy, than by any other. In emmasio mesnum it exerts surprising effects, having established the flow after thirty days' treatment in two cases, which had resisted the usual methods, in one a year, and the other a still longer period. My usual plan is to give in menorrhagia and metrorrhagia teaspoonful doses three times daily, in emmasio mesnum 30 drops 3 t. d., but post-partum hemorrhage requires more energetic measures—teaspoonful doses every twenty to thirty minutes till the bleeding stops.

"I hope others may give the remedy an honest trial in order that its actual value may be ascertained, for I feel that we have in viscum album a remedy powerful for good."

The Medical School of the University of Maryland intends to make a number of changes in its curriculum so as to furnish a more thorough course and a higher standard of graduation. It will abolish its present beneficiary system and confer beneficiary scholarship upon such young men as have distinguished themselves in a study or laboratory work. Laboratories are to be constructed, and a number of special courses will be given. This change we are informed by the *Maryland Medical Journal* is much needed.

The Prize Essay of the Baltimore Academy of Medicine has been adjudged to Dr. W. T. Councilman, of Baltimore. The subject of the essay was: "A Contribution to the Study of Inflammation, as Illustrated by Keratitis."

A Bone Setter from Abroad.—For many years a peasant-woman in one of the smaller towns of Italy has practised the art of "bone-setting." She has claimed to have the usual natural skill of this class of persons, but her success has been much greater than is ordinarily the case. The fame of her cures gradually extended throughout the country and even attracted foreigners to her "clinics." She was once brought up before the Court by a neighboring Faculty, and charged with practising surgery without knowing the name of a single bone. The authorities could not let to neglect her, however. In course of time a number of Americans received her care and became deeply enthusiastic over her successes. An article describing her and her ways appeared in a number of *The Century* in 1872.

About a year ago, a wealthy American family brought the bone-setter over to this country with the philanthropic desire of giving relief to the crippled limbs of their fellow-countrymen.

Of the many marvellous tales about her, one, not so marvellous we know to be authentic. A lady, living in Albany, received a fall by which her shoulder was, according to the surgeons who examined it, either dislocated or partially dislocated. The lady, being of a nervous temperament, absolutely refused either to take ether or to suffer the pain that the manipulation to replace the arm would cause. After waiting five months, therefore, she finally heard of the Italian bone-setter, and came on to Brooklyn to receive treatment at that specialist's hands. She was told that the arm could be replaced without difficulty and without pain. She was ordered to poultice the whole shoulder three times a day with a mixture of bran and marsh mallow. At the end of three days the bone-setter performed her manipulation and returned the arm (if it was out) to its proper place, causing no pain by the operation.

It is her usual practice to have poultices of the kind mentioned applied before returning dislocations. The plan is of course a good one. It is known that most of the so-called bone-setters perform their marvellous cures, as a rule, upon joints not dislocated, but which have become rigid from disuse or from some inflammatory adhesions, which injuries have brought about. The manipulation breaks up the adhesions and the patient is soon able to walk or use the extremity. This fact, the application of poultices and a really delicate handling, will explain all that our Italian visitor does.

Answers to Correspondents.

Professional Competition.—A correspondent asks:—Is a physician entitled to receive the courtesy of the code who will ride several miles to visit a patient and make three such calls for a dollar, when patient has abundant means to pay more, and the resident physician charges one dollar a call, and the society to which both belong has a fee bill which provides for no call less than a dollar and mileage; and what is the best course for a regular physician to adopt toward the above-mentioned "cheap John," when he tells people freely that he will ride several miles and render his services in all cases at the same or less rate than the resident physician, and consults with irregulars whenever it so suits his convenience?

[The better way is to have as little as possible to do with such a professional brother. Probably his time and services are not worth more than he charges for them, and he has a right to keep his conscience clear. In any event most of his time is spent on the road, and consequently he can visit but few patients. If he consults with irregulars he is a fit subject for discipline in his county society.—Ed.]

Books Received.

Students' Primer on the Urine. By J. Travis Whittaker, M.D., Glasgow. Philadelphia: Presley Blakiston. 1880.

Original Communications.

THE BROMIDE OF ETHYL AS AN ANÆSTHETIC.

By J. MARION SIMS, M.D., LL.D.,
NEW YORK.

(Read before the New York Academy of Medicine, March 18, 1880.)

THE bromide of ethyl is now making considerable reputation as an anæsthetic. It was discovered by Serullas in 1827, but attracted no special attention till Dr. Thomas Nunnelly, of Leeds, made some experiments with it on animals in 1849. Dr. Nunnelly brought the subject again before the profession by a paper read at the British Medical Association in 1865, in which he says he had employed it as an anæsthetic "in all the principal operations at the Leeds General Eye and Ear Infirmary." This was at the time when chloroform held such complete sway in England that no importance was attached to Nunnelly's experience, and he had no followers.

In 1876 some experiments were made with it in France by Rabuteau on the lower animals, but without a knowledge of the fact that this had been done previously in England by Nunnelly.

To Dr. Laurence Turnbull and Dr. R. J. Levis, of Philadelphia, we are indebted for what we know of the anæsthetic properties of the bromide of ethyl.

Dr. Turnbull began to experiment with it in September, 1877, using it first on himself, and then on his patients. After satisfying himself as to its efficiency and safety as an anæsthetic, he laid the subject before the Pennsylvania State Medical Society in 1878. In August, 1879, he brought it before the British Medical Association at Cork, and in September of the same year before the International Medical Congress at Amsterdam. In April, 1879, Dr. Turnbull had the good fortune to interest Dr. Levis in the subject. Dr. Turnbull's operations under the ethyl were mostly in ophthalmic and aural surgery, and were generally of short duration. But Dr. Levis being surgeon to two large general hospitals (the Pennsylvania and the Jefferson Medical College Hospital), had ample opportunities of testing its qualities and proving its excellence as an anæsthetic in general surgery and in prolonged operations; and through his influence and teachings at these hospitals it seems to be coming rapidly into common use.

The bromide of ethyl has been pronounced by Maisch and Stillé, and by Dr. Greene, of Philadelphia, to be hydrobromic ether.

There are two or three processes for making the hydrobromic ether. Our friend Dr. Squibb will explain them to you. The most economical is the phosphorus, alcohol and bromine one. The disagreeable odor belonging to the hydrobromic ether made by this process is supposed to be due to the phosphorus. Another process is by distilling absolute alcohol with about three times its weight of bromine. Another process consists in the combination of potash and bromine. Its formula is:

C_2H_5Br; boiling-point, 105° F.; density, 1,419 at 59° F.

Dr. Turnbull defines hydrobromic ether to be "a pure, colorless, very volatile liquid which evaporates with great rapidity on bibulous paper, leaving no residue, and having a strong ethereal odor which remains upon the patient's breath long after its use. It has a sweetish and hot taste. Its boiling-point is intermediate between that of chloroform and ordinary ether. It is sparingly soluble in water, but mixes with it, and in all proportions with alcohol and ether."

I here show you samples of it made by four different manufacturers in Philadelphia. That marked No. 1 was made by Wyeth & Bro., and is mostly used by the surgeons in Philadelphia. You see how readily its vapor extinguishes a flame. No. 2 contains ether, and ignites. These two have a peculiar but not disagreeable odor. Nos. 3 and 4 have a very strong, unpleasant odor, which is repulsive. This is the kind that was used by Turnbull and Levis before Wyeth made a better article.

It is claimed for hydrobromic ether that it produces anæsthesia more rapidly than chloroform, and is eliminated from the system more rapidly by the lungs and kidneys than any other anæsthetic, and that it is less apt to produce vomiting than ether or chloroform.

It usually produces anæsthesia in two or three minutes—sometimes four; and consciousness returns in two or three minutes after its administration ceases. It is given (according to Turnbull and Levis) "on a handkerchief or small napkin folded up to a space of about four inches square, and then laid on a larger napkin folded so as to be large enough to cover the entire face of the patient."

About two drachms are poured on the napkin to begin with, and a drachm is added afterwards at intervals as required.

Hydrobromic ether has been administered in Philadelphia as an anæsthetic about two hundred times, and it is greatly lauded by all who have used it. Of course, this is a small experience upon which to base its absolute safety. Chloroform was administered to thousands of cases before we heard of a death from its use, and now we know that it has slain its hundreds.

Bichloride of methylene has been given by Spencer Wells most extensively, perhaps a thousand times without an accident, and yet a voice comes up from the profession saying that it is quite as dangerous as chloroform; and outside of the personal influence of Spencer Wells it is rarely used in England, and has not been generally adopted elsewhere.

The profession have been for a long time in search of a new anæsthetic. We have been waiting for one as pleasant to take as chloroform and as safe as ether. When we are convinced that we have one answering this description, it will be heartily welcomed by the profession all over the world. Does the Turnbull-Levis anæsthetic come up to our expectations? Time alone will show. It is the duty of every man who has had any experience with it to lay it before his brethren. With this obligation pressing heavily upon me, I came here to-night to lay my contribution on this important subject before you.

For my knowledge of the use of hydrobromic ether I am indebted to Dr. Levis. I made him a visit on the 28th of January last, when he told me of his experience, gave me his paper on the subject, and gave me a bottle of the ether for experiment. I came home saturated with Dr. Levis's views. From his experience I felt quite convinced that we had at last found the long looked-for anæsthetic.

Three days after my visit to Dr. Levis I gave the hydrobromic ether to a young lady at St. Elizabeth's Hospital; but, not understanding the proper method of administering it, I failed utterly to produce its anæsthetic effect. In eight minutes we had wasted

eight drachms of hydrobromic ether, and it produced only a stage of excitement in which the patient was wholly uncontrollable. I then laid it aside and resorted to ether. On the next day I gave it to a young lady, twenty years old, who was completely anæmic from uterorrhagia which had continued many months. She was so exhausted from loss of blood that she occasionally had syncope, even in the recumbent posture. By the inhalation of two drachms of the hydrobromic ether given by Dr. White she was completely anæsthetized in two minutes. The operation was performed in about five minutes, and she was placed in bed and recovered consciousness in two or three minutes more. I was so well pleased with the anæsthetic in this instance that I felt encouraged to give it further trial. The effect produced in this case differed widely from that in the first, and depended entirely upon the different methods of administration in the two cases. In the first, the bromide of ethyl was poured on a folded handkerchief, and held close to the mouth and nostrils, but not in absolute contact with them. In the second case, it was poured on a folded handkerchief and laid in contact with the mouth and nose, and held firmly there by a towel folded into a square of eight or ten inches. By this method no air could be breathed that was not loaded with the ethylic vapor. With this experience as a guide I determined to administer it in a case of Battey's operation.

Miss B——, of Tallahassee, Florida, twenty-five years old, in perfectly good health, had been subject to epileptic attacks for the last five years. They came regularly on the fourth or fifth day after the cessation of the menses. Menstruation was scanty, lasting but two days. She had retroversion, and the right ovary was enlarged and painful on pressure.

Bromides had been largely used without any permanent improvement. The uterus had been replaced, but with no improvement; afterwards the cervical canal was enlarged by incision; then menstruation became normal in quantity and painless, and yet the post-menstrual epileptic seizures were not modified in the least. Her physicians, Dr. Betton and Dr. Bond, had advised Battey's operation, and from my failure to give her any relief by the tentative efforts just alluded to, I did not hesitate to advise her to submit to Battey's operation, and it was performed on Monday, February 9, 1880.

Everything being ready, a drachm of bromide of ethyl was poured on a folded napkin and held closely over the mouth and nose. In a minute more another drachm was poured on the napkin, and at the end of two minutes she became insensible and relaxed; but the conjunctiva was sensitive to touch, and her eyes rolled about, and her breathing was very rapid. At the end of five minutes (the hydrobromic ether added as required) she was perfectly insensible and breathing sixty times a minute. This very rapid breathing would moderate whenever the ether-napkin was removed so as to allow the admission of pure air, and would always increase by pouring fresh ether on the napkin. At the end of ten minutes she could be kept quiet, breathing softly and regularly, but always above the normal standard. The pulse was now 86, full and strong. During the first twenty minutes we had used about two ounces of the hydrobromic ether. At that time she vomited freely the contents of the stomach. At the end of forty minutes she vomited again, with severe straining.

On three occasions during the operation there was considerable opisthotonos, with twitching and rigidity of the muscles of the extremities, and constant rolling of the eyes in every direction.

Dr. Nash thought these were similar to her epileptic attacks, in one of which he had seen her.

The operation lasted an hour and a half. Her condition was good during the whole time, and her pulse was strong and full. The rapid, short breathing was a peculiar feature; the sensitiveness of the conjunctiva existed from the beginning to the end of the operation, and her eyeballs were in almost constant motion. There was no unusual dilatation of the pupils. In all, about four and a half or five ounces of the ethyl were used.

She recovered quickly from the anæsthetic after being put to bed, but she had the most distressing retching and vomiting imaginable. The straining was so violent that Dr. Nash more than once placed his hands over the abdomen to prevent the wound from bursting asunder. From the moment of returning consciousness she complained of violent pain in the head, and to relieve this pain she got a fourth of a gram of morphine hypodermically. In an hour this was repeated. Two hours after the operation (6.30) the pulse was 60, full and strong.

6.45.—Distressing retching and vomiting continued almost uninterruptedly ever since the operation was finished. Headache very severe. Quarter-gram of morphine hypodermically for pain in head. One ounce of urine drawn by catheter.

7.30.—Nausea and retching, but no vomiting; still has severe pain in the head. Thin, yellowish brown movement from the bowels, watery, but a few ounces, odor very offensive, having the smell of bromide of ethyl.

8 P.M. Another movement from the bowels, the same character as the first.

9 P.M. Another movement of the same brownish water; each attended with some tenesmus.

9.30 P.M.—Milk and brandy, to be repeated at intervals.

10.15 P.M.—Two ounces of urine drawn; bowels moved twice in the last hour. This makes five movements of bowels in three hours. The odor of the bromide of ethyl in the passages was so strong that it attracted the notice of the inmates of the house.

11 P.M. Pulse, 117; temperature axilla, 99.4; respiration, 25. Still complains of pain in the head; small, brownish, watery discharge from the bowels, attended with tenesmus and mucus.

12.35 A.M., Tuesday, Feb. 10th.—Very restless; complains of pain and desire to go to stool. Gave one-fifth grain of morphine hypodermically. Hiccough occasionally since 10 P.M.

3.15 A.M.—Has slept since the administration of the morphine 2 h. 40 m.). Drew off two ounces of urine. Hiccough occasionally since 10 o'clock. Tenesmus and effort at movement of the bowels. Pulse, 125; temperature, 101°. Sleeping.

5 A.M.—Pulse very feeble. Stimulants.

5.30 A.M. Pulse scarcely perceptible.

6 A.M. Small, brownish, watery movement from the bowels, with tenesmus.

6.40 A.M. Recurrence of hiccough; quietly sleeping; perfectly conscious when spoken to.

7 A.M.—I saw the patient and made the following note: pulse imperceptible; no pain except in head; somewhat restless. I fear internal hemorrhage, because the diarrhœa does not seem to have been sufficient to prostrate her to this extent. Her breath is highly charged with the ethyl odor. The movements from the bowels are brownish dirty water, with some tenesmus and mucus. Passed a catheter into the

sigmoid flexure and injected thirty grains of tannin and twenty drops of laudanum, which passed off immediately.

7.45 A.M.—Very restless; wishes to sit up; growing weaker; mind wandering.

8.40 A.M.—Catheter introduced, no urine in the bladder; pulse imperceptible. Respiration, 36; temperature, 102⅕°.

10.30 A.M.—Catheter introduced, teaspoonful of high-colored urine drawn.

11 A.M.—Severe convulsion, with frantic ravings. Convulsions ceased at 11.40 A.M., with heart-rending screams, and she died at 12.15 P.M., about twenty-one hours after operation.

Wednesday, Feb. 11, 1880, 8.45 A.M.—Post-mortem made (twenty hours after death) by Dr. S. Waterman, Dr. Waterman, Jr., and Dr. Nash. External wound three inches and a half long. Sutures (8) removed; edges of wound adherent throughout. Abdomen laid open by free incisions, longitudinal and transverse. Two and a half ounces of bloody serum in the peritoneal cavity, three drachms of it being in the Douglas pouch below the retroverted uterus. There was no exudation of lymph, and no signs of peritonitis.

The left broad ligament united to sigmoid flexure by old and strong adhesions were broken up, and then the uterus and broad ligaments were removed, together with utero-sacral ligaments, a portion of bladder, and the upper part of vagina. The lower part of the ileum for about eighteen inches looked dark and congested, and about twelve inches of it were removed, severing it at the caput coli. The colon was also of the same dark brown color, and five or six inches of the descending colon were removed, and also both kidneys. The kidneys seemed to be healthy.

Now, the question arises: What was the cause of death in this case? Before the post-mortem was made I supposed that the uncontrollable straining efforts to vomit had resulted in displacing some of the pedicle ligatures, and that my patient had died of slow internal hemorrhage. But the post-mortem proved otherwise.

In a letter received from Dr. Levis (Feb. 19th) he says:

"It seems to me that the only unpleasant symptoms which could possibly be referred to the anæsthetic were those of the head, and it is evident that the death of the patient is not to be attributed to cerebral causes. As to the diarrhœa or cholerine, which, probably with shock, seemed to cause death, that could not be attributed to the anæsthetic. Ethyl has been used in this city about two hundred times, uniformly with the most happy results. In my experience there has been no headache or other evidence of cerebral disturbance following the administration. No bowel affections have been observed, and none would be thought of. Do not be too hasty in the association of the anæsthetic with the cause of death. Many thousands of patients have died within twenty-two hours after the administration of ether and chloroform."

Some persons think that death was produced by chlorine. Let us sum up the evidence bearing on this point.

The patient took three drachms and fourteen grains of Rochelle salts at 8.30 A.M. It operated freely twice before 11 o'clock, and no more till 7 o'clock, about two hours after the operation. She then had six thin, brownish, watery discharges from the bowels between 7 and 11 o'clock P.M.—not large, but attended with tenesmus, and the last with a little mucus. At 12.15, 2.40, and at 6 and 7 next morning, there were other thin, watery, brown discharges, with tenesmus and a little mucus, and the patient wanted the bed pan under the pelvis constantly.

Thus, we see that, between 7 P.M. and 7 the next morning, there were not less than ten watery, not profuse, but exhausting evacuations, over which opiates and astringents did not exercise the least influence. Dr. Nash says: "A few hours before death there were several (two or three) large involuntary movements from the bowels, such as she had previously had—dirty, thin water, with the disagreeable ethyl odor." The lower portion of the ileum and the colon were black and congested, and altogether presented an appearance far from a normal, healthy one.

This is a strong array of facts to sustain the theory of death by cholerine; and in all probability this cholerine had an important bearing on the termination of the case. But from my standpoint of view this was only secondary. Was death, then, caused by the anæsthetic?

Let us here sum up the evidence bearing on this point.

The patient was under the influence of the anæsthetic for an hour and a half. Its effects were different on her from what has been observed by Dr. Levis and others in Philadelphia. She breathed often sixty times a minute. She had opisthotonic convulsions three times during its administration. When she recovered from its effects she complained all the time of severe pain in the head. She had a congested state of the eyes and eyelids; and she had convulsions before death; and the discharges from the bowels smelt so much of the ethyl that the inmates all over the house noticed and complained of its peculiar, disagreeable odor. The woman who washed and dressed the body after death says that the odor of ethyl from the lungs, when she would roll the body over, was as strong as when it was being administered. When we came to make the post-mortem we found the ethyl odor pervading the intestinal canal and other organs of the body. At 8.45 A.M. the post-mortem was made, and I wrapped up the portions of intestine removed, the uterus and its appendages, and the kidneys, in a sheet of newspaper, and took them home, and placed them (as I was hurried) on a table in the distal end of my consulting-room, where they lay till 9 P.M.—about eleven hours. During the afternoon and evening the ethyl odor emanating from these pathological specimens was particularly noticeable in the part of the room in which they were laid.

At 9 P.M. they were unrolled in the presence of Dr. Nash and Dr. Gilliam, to be placed in spirits for preservation. When the specimens were examined separately we found the intestine, which had been split open, smelling strongly, not of fæces, nor of dead animal matter, but of the anæsthetic; and when the kidneys, which had been laid open, were brought near the nose, it was almost like smelling ethyl from an open bottle. From this it would seem that every fibre, every tissue of the body, in its minutest parts, was saturated with the ethyl.

We know that anæsthetics, whether ether or chloroform, must be eliminated from the body, and that the lungs and the kidneys are the usual emunctories selected by nature for this purpose. But in this case the kidneys were locked up as it were, and hence the bowels were called on to aid the lungs in

getting rid of the poison. It is altogether probable that the cholerine was due wholly to the action of the ethyl, and not to the salts, which, as is usual with such a dose, exhausted itself by 11 o'clock in the morning, four and a half hours before the anæsthetic was given, and eight hours before the thin, brownish, watery discharges began. It is hardly probable—I should say possible—for three drachms of Rochelle salts to produce such a condition of the mucous membrane of the ileum and colon as we found here.

I sent the pathological specimens to the histologist for examination on the 12th February, and I received a verbal report a fortnight afterward saying that the kidneys were healthy. But a few days ago I received the following:

"The kidneys to the naked eye looked normal. Under the microscope there was a slight increase of the interstitial connective tissue. Many of the convoluted tubules showed swollen and coarsely granular epithelia, and considerable narrowed central calibre, a characteristic feature of acute catarrhal nephritis.

"Slight cirrhosis of the kidney, with acute catarrhal nephritis, often exists without marked clinical phenomena, and may be overlooked by the physician."

Now, if this account of the kidneys (which I do not understand) amounts to anything, let us look at the case from this point of view.

Dr. Nash, in his report to me, says:

"From the time she was laid in bed she was excessively nauseated, and had great restlessness and intense straining efforts to vomit; her eyes were red, both conjunctivæ and lids, and when asked what pained her, replied, 'Oh! my head! my head!' When spoken to she would answer intelligently, but at no time addressed any question or conversation to any one.

"After answering questions she would relapse into a state of restlessness and groaning, often throwing her hands up to her head. In order to quiet her, sulph. morph. was given hypodermically, which never completely controlled her. It was difficult for two nurses to keep her covered, on account of constant motion of arms and legs, and rapid turning from side to side for two hours after operation. I frequently asked her if she had pain at the seat of operation, and she invariably replied, 'No, my head!' The expression of face was never natural after operation; jaws much sunken, and eyes often rolled upward. The discharges from the bowels were saturated with the odor of the ethyl, and the lady of the house and others told me that the medicine we gave to put her to sleep had gone through her bowels, as they smelt it when the bed-pan was emptied into the closet. Not until about ten hours after the operation did she acknowledge having pain in the abdomen, and that was merely the tenesmus attending the cholerine evacuations.

"I never considered her as having entirely recovered from the effects of the anæsthetic. The convulsions consisted in frantic ravings, with agonizing screams; eyes wide open, glaring, and intensely red. Then followed a few minutes of quiet, and then death.

"A few hours before death there were several (two or three) large involuntary movements from the bowels, such as she had previously had—dirty brown, thin water, with the disagreeable ethyl odor."

In reading Dr. Nash's report carefully, we are led to ask: "Was this a case of uræmic death?" We know very well that ether, as an anæsthetic, often proves fatal where there is organic disease of the kidneys. Dr. Lente was, I believe, the first to impress this on the medical mind.

I have seen two deaths from etherization in women over fifty years of age, where no disease of the kidneys was suspected till fatal coma was produced by the ether. In these cases the secretion of urine was almost instantly arrested, and the little found in the bladder was loaded with albumen. One of these was a patient of Dr. James R. Wood's; the other, a lady from Brooklyn.

In cases of organic kidney disease, the hydrobromic ether may be just as dangerous as ordinary ether.

In the case under consideration, between the time of operation and death, twenty-one hours after, there were drawn off but five ounces and one drachm of urine, viz.

One ounce at 6.15 P.M., and two ounces at 10.15 P.M. on the 9th; two ounces at 2.40 A.M. on the 10th, bladder empty at 8.40 A.M.; one drachm at 10.30 A.M., death at 12.15 P.M.

Of course the purity of the article is essential to its successful action, just as the purity of chloroform and ether is essential to theirs. Was the ethyl given to my patient pure or impure? You will perceive what a difference there is in odor between the two. The Wyeth sample is not unpleasant to the smell; the other is execrable. It is very important to determine this point before we condemn this new anæsthetic. It has many qualities to recommend it: it is easy to administer; the patient goes quickly under its influence, and recovers rapidly from its effects. But, if it is dangerous, all these qualities pass for naught. Would it be asking too much of the Academy to order an analysis of these two specimens of the hydrobromic ether to be made for the benefit of the profession at large? If the two are identical in their chemical characters, then I should not advise the use of hydrobromic ether as an anæsthetic. But if it be proven that one specimen contains noxious properties not in the other, then I would advise further experiments with the pure article.

We know that ether is safe in long operations, and that chloroform may be unsafe in short ones. It may be possible that hydrobromic ether will prove safe in short operations, and unsafe in long ones.

In some of Dr. Laurence Turnbull's cases it produced very distressing effects, which, if prolonged, might have ended, as my case did, fatally.

Dr. Turnbull gave the hydrobromic ether to a nervous, hysterical woman, aged twenty-five (Case 8), for the purpose of replacing a retroverted uterus and adjusting a pessary to hold it in position (Case 8,* . . . . "With a little less than one ounce of hydrobromic ether there was produced complete anæsthesia in four minutes, long enough for placing of a pessary to relieve the above symptoms. During the administration the pulse was but slightly accelerated; return of consciousness was accompanied by excessive gagging and vomiting of large quantities of mucus, great burning in stomach and throat, severe headache, cold perspiration, weak and rapid pulse, all of which continued for twenty-four hours, with more or less severity. Both sulphuric ether and chloroform had previously, on several occasions, produced similar symptoms, but not so severely."

Any agent which in four minutes' time could produce "excessive vomiting, burning in stomach and throat, severe headache, cold perspiration, and a weak and rapid pulse" which continued for twenty-

* Artificial Anæsthesia, etc., 2d edition, p. 74.

four hours, would, if the anæsthetic had been continued (as in my case) long enough for the whole mass of blood to become poisoned and for every tissue in the body to become saturated with it—would, I say, certainly have ended in the death of the patient.

Dr. Levis has had a larger experience with this anæsthetic than any other surgeon, but his longest operation was but forty minutes, whereas my unfortunate case lasted an hour and a half. It may be that we did not administer the ethyl as skilfully as it should have been done. But I do not think we could have given less and maintained the anæsthesia sufficient for its purpose.

If the operation had been comparatively short—if it had lasted only twenty or thirty minutes—if it had terminated before my patient's system, solids as well as fluids, became thoroughly saturated with it, she would in all probability have recovered; but, as it was, it seemed to kill by supersaturation which could not be eliminated, even with the aid of the whole mucous tract of the alimentary canal to aid the lungs. If mine had been a short operation, I might to-day have been lauding the new anæsthetic as a veritable boon to surgery. But, as it was otherwise, I must raise a warning voice, especially in prolonged operations.

It would be an interesting scientific inquiry to determine if ethyl-poisoning by inhalation produced cholerine with adeeply congested condition of the mucous membrane of the lower portion of the alimentary canal, and also to determine what other pathological changes it might induce.

This could easily be done by experiment on the lower animals, and it is to be hoped that some of our physiological *savans* will soon tell us by such experiments what we have to hope and fear from the long continuance of the bromide of ethyl as an anæsthetic.

The inference that I draw from the facts in the history of this case is that the anæsthetic was the cause of death, while the manner of death may have been by uræmic poisoning. The lesson from this is, never to give bromide of ethyl in prolonged operations, and never to give it where there is organic disease of the kidneys. What, then, shall we give?

CASE OF

COMPLETE OBSTRUCTION OF THE BOWELS,

OF THREE WEEKS' DURATION, RELIEVED BY LUMBAR COLOTOMY—DEATH FROM EXHAUSTION AFTER AN INTERVAL OF FORTY-FOUR DAYS.

REPORTED BY ALFRED C. POST, M.D., LL.D.

(Read before the New York Academy of Medicine, March 18, 1880.)

On the 27th Dec., 1879, I was called to see Mr. A. B ——, a gentleman, 52 years of age, who had enjoyed good health until the previous June, when he had an attack of acute dysentery, by which he was confined to the house for two weeks. Since that time his bowels were never free from irritation. On the 4th November he was out of the house for the last time. For two weeks he lay upon a lounge, and after that time was confined to his bed. His evacuations at first were liquid, of a dark brown color and of an offensive odor, mixed with blood and mucus, and occurred as often as once in two hours. On the 5th December he had a sudden gush of pus tinged with blood, amounting to half a pint, and attended with a chill. Soon after that he ceased to have any fæcal evacuations, but had very frequent discharges of bloody, purulent matter, with much tenesmus.

On the 26th December, after a digital examination of his rectum, he had another chill, followed by a discharge of clots of blood. He had been treated all along by homœopathic physicians, who had finally informed him that he had cancer of the colon, that nothing could be done for his relief, and that death within a few days was inevitable.

When the patient was transferred to my charge on the 27th December, he had been three weeks without a fæcal evacuation. I found the intestines distended with gas, and every part of the abdomen yielding a tympanitic resonance on percussion. I examined carefully along the whole course of the colon, and could not find any point where there was dulness on percussion. The patient was then placed on his left side, and I introduced my right index finger into the rectum, and I could feel at the point of my finger, along the anterior wall of the rectum, beyond the prostate, an obstruction caused by a hard swelling with irregular outlines, which I could not very accurately define on account of its distance from the anus. I did not form a decided opinion as to the benign or malignant character of the morbid growth. On the following day, Dr. H. B. Sands met me in consultation, and after a digital examination, the patient being in a supine position, he expressed the opinion that there was a cancerous deposit in the anterior wall of the rectum. He agreed with the opinion which I had previously expressed, that colotomy held out the only prospect of relief. The patient was very much emaciated, his muscular system was much debilitated, and he had a rapid and feeble pulse. He had been troubled with nausea and anorexia for some time before I was called to see him, and had only been able to take liquid nourishment, and in very small quantities.

On the 28th December he began to have stercoraceous vomiting, which was repeated on the 29th.

On Monday, December 29th, with the assistance of Drs. Sands and Briddon, and of Dr. William A. Fanning, who administered the anæsthetic, I performed lumbar colotomy on the left side, making the incision midway between the twelfth rib and the os ilii, the middle of the incision being half an inch behind the middle of the crest of the ilium. After dividing the oblique and transverse abdominal muscles I came down to the external margin of the quadratus lumborum, and to the layer of fat which covers the descending colon. On dividing the fat, the colon, distended with gas, presented itself at the wound, and I was able to recognize one of its longitudinal bands. Two ligatures, about an inch apart, were passed through the lips of the cutaneous wound and through the colon, and the two ends of each ligature were separately tied so as to form two loops, and then a vertical incision, an inch long, was made in the colon between the two ligatures, giving issue to fetid gas and a small quantity of liquid fæces. The mucous membrane of the intestine was then attached by sutures to the lips of the cutaneous wound, and a drainage-tube was passed between the gut and the deeper part of the wound, projecting three inches beyond each extremity. The cutaneous wound on each side of the artificial anus was then closed with sutures. During the operation, sponges wet with carbolic acid, 1 to 20, were freely employed. After the wound was dressed, a carbolic lotion, 1 to 40, was injected through the drainage-tube. The surface of the wound was covered with lint moistened with the

same lotion; over this was laid a thick compress of oakum, kept in place by a flannel bandage.

Dec. 30th.—Patient is more comfortable than before the operation. There has been no tenesmus, and no discharge of blood or pus through the rectum. There was a discharge of liquid fæces through the artificial anus about seven o'clock last evening, and another about ten this morning. There has been no vomiting since the operation. The tympanitic distention of the abdomen has subsided. The patient has been able to take milk pretty freely; he does not desire to take other food.

Dec. 31st.—There have been five small discharges of liquid fæces through the artificial anus since my visit yesterday. The patient complains of soreness in the wound, but there is no appearance of inflammation. I removed the drainage-tube. There is an offensive, purulent discharge from the rectum, but without tenesmus.

Jan. 1, 1880.—Since the last report there have been two fæcal discharges of more consistence through the artificial anus. The patient takes milk and cream quite freely.

Jan. 5th.—The patient does not seem to gain strength. Pulse about 100, feeble and irregular; temperature about 101°. His bladder is irritable, and there is an almost constant dribbling of urine. This morning I introduced a catheter, and drew off a pint and a half of high-colored urine.

Jan. 6th.—This evening, about 10.30 P.M., there was a flow of blood from the wound, which soaked through the bandages. I was summoned to see him, and arrived a little before midnight. I had the bandage removed, and found that the bleeding had ceased. I estimated the whole quantity of blood lost at about three ounces. I suppose that the hæmorrhage may have been excited by the distention of the wound with fæcal matter. I directed the tight bandage around the abdomen to be discontinued, and a loose bandage to be pinned around the body.

Jan. 7th.—There has been no return of the bleeding. To-day I removed most of the sutures. There has scarcely been any primary union. The dribbling of urine continues, but the patient absolutely refuses to have the bladder emptied with a catheter.

Jan. 8th.—The wound being much distended with solid fæcal matter, I removed the remaining sutures, and squeezed out the mass of excrements, leaving a deep cavity containing some fæces at the bottom. The edges of the wound receded throughout their whole extent. The lower lip of the wound remained at its proper level, being supported by the crest of the ilium; the upper lip fell backward and upward into the cavity. I introduced picked lint, moistened with carbolic oil, so as to support the upper lip of the wound at its proper level, and directed the nurse to repeat the application as often as it became displaced by the passage of fæces.

Jan. 10th.—For several hours the patient had been unable to pass urine. I introduced a catheter and drew off four or five ounces of a dark color.

Jan. 11th.—On visiting the patient to-day, I found that he had passed urine frequently in small quantities. He had also had several passages of thin, semi-liquid fæces through the rectum. The fæces passed through the artificial anus continued to be solid, but somewhat less in quantity. I introduced my finger into the rectum, and it appeared to me that the swelling and induration were somewhat less than before the colotomy. At the highest point which I could reach with my fingers I found a perforating ulcer in the anterior wall of the rectum, three quarters of an inch in diameter. It was so high up that I could not explore the cavity into which it opened. My finger was thoroughly smeared with semi-liquid fæcal matter.

Jan. 14th.—Since the last report the discharge of semi-liquid fæcal matter through the rectum has been frequent and very considerable in quantity, amounting to not less than two or three quarts. There has been no change in the character of the discharge through the artificial anus. Mist. creta with tinct. opii camphorat. has been ordered to diminish the frequency of the discharges. Patient continues to take milk and cream freely. He has been averse to the use of stimulants, but I have persuaded him to take a teaspoonful of brandy hourly, as his pulse is feeble, frequent, about 130, and his tongue is dry. The edges of the wound in the colon, constituting the artificial anus, have receded to the distance of half an inch from the skin, and the process of granulation is very tardy. The semi-liquid fæcal discharges through the rectum continue quite free. I removed to-day, with the handle of a spoon, a considerable quantity of solid fæcal matter through the artificial anus. I then injected through the same channel two or three pints of warm water into the colon, and it brought away an additional quantity of lumpy fæces, exposing to view the interior of the colon to the depth of about three inches. The mucous membrane, thus exposed, appeared somewhat reddened, but otherwise normal.

Jan. 19th.—The semi-liquid fæcal discharges through the rectum continued until the evening of the 17th, when they were replaced by watery evacuations, and towards morning by a pretty copious discharge of pus. Yesterday morning the discharges per anum again became fæcal, and have continued so to the present time. The discharges through the artificial anus continue solid, but less copious than they were, and of a much lighter color. The patient continues feeble; his tongue, which was quite dry, has become moist at the edges. He continues to take milk and cream freely; he has also taken brandy, as at the last report. I directed the dose to be increased to two teaspoonfuls every hour.

Jan. 21st.—He has watery evacuations through the rectum about once in two hours, without any appearance of fæcal matter.

Jan. 22d.—The nurse directed my attention to an inflammatory swelling, about the size of a black walnut, on the right side of the anus. There was tenderness on pressure, and an obscure feeling of fluctuation. I directed hot yeast poultices to be applied, and to be renewed once in two hours.

Jan. 23d.—Dr. H. B. Sands saw the patient with me. The swelling by the side of the anus has increased in size, and the fluctuation is quite distinct. I etherized the patient, and made a free incision, evacuating an ounce or more of thick, tenacious pus. On introducing a finger through the anus, the swelling in front of the rectum, which seemed to be the cause of the obstruction, could be felt as a moderately hard, rounded mass. While the finger was in the rectum there was an escape of a dirty fluid, like dish-water, having a somewhat offensive odor. About two hours after my morning visit the patient had a chill, which lasted nearly an hour. About the same time there was a pretty copious discharge of pus, as if a new abscess had broken into the rectum. I saw the patient about an hour after the chill had subsided, and found him in as good a condition as before its occurrence.

Jan. 27th.—The abscess beside the anus is granu-

lating, and presents a healthy condition. There is a small bed-sore over the sacrum, about an inch in length and half an inch in breadth. I directed a perforated cushion to relieve pressure. Since the last report the evacuations through the artificial anus have diminished in quantity, but their quality remains the same. There have been frequent semi-liquid fæcal evacuations through the rectum, having nearly the same color as the more consistent evacuations through the artificial anus.

Jan. 29th.—Since yesterday fæcal evacuations through the rectum have ceased, and there have been frequent passages of thick mucus, slightly tinged with blood. I ordered an enema of tinct. opii ℥ ss., with infus. sem. lini ℥ ss., to be occasionally repeated, if necessary, but not at intervals less than two hours.

Jan. 30th.—Two anodyne enemata were given. The slimy passages have ceased, and fæcal evacuations in small quantity have taken their place. The bed-sore has improved since the perforated cushion has been used.

Feb. 9th.—No remarkable change has taken place since the last report until to-day. This morning he vomited a dark-colored liquid, and since that time he has not been able to retain his milk and cream. He appears much more prostrated. His pulse at the wrist is almost imperceptible. I ordered the milk to be temporarily discontinued, and a wineglassful of wine-whey to be given once in two hours.

Feb. 10th.—He has retained the wine-whey, but he appears to be growing more feeble. I injected three or four ounces of milk punch into the colon through the artificial anus. I directed milk and cream to be given again by the mouth, and repeated if retained. I also directed a tablespoonful of milk punch to be poured into the artificial anus once in two hours. I saw the patient again in the evening, and learned that soon after my previous visit the principal part of the milk which I had thrown into the colon had been discharged through the rectum. The patient had retained the milk and cream which he had taken into his stomach, and did not appear quite as much prostrated as in the morning.

Feb. 11th.—Death took place at 4 A.M. A post-mortem examination was requested, but was not allowed.

In reviewing this case it appears to me that there are several points which are worthy of special attention.

In the first place, there is good reason to believe that if the operation of colotomy had been performed at a much earlier period, before the strength of the patient had been so greatly reduced, he would have rallied more perfectly, and perhaps might have been restored to health.

Second. Even at the late period at which the operation was performed, when the vital powers were greatly prostrated, his life was prolonged a number of weeks, and his condition was very much more comfortable than it was before the operation.

Third.—Although the opportunity was not afforded to demonstrate the exact pathological condition by a post-mortem examination, yet the history of the case seems to me to indicate that the obstruction of the bowel was not the result of cancerous deposit, but rather of inflammatory hyperplasia, resulting from perforating ulcer of the rectum, consequent on dysentery. The fact that, on several occasions, there was a sudden and copious escape of pus, seems to favor this view of the case. There is reason to believe that serious obstructions of the bowels, undermining the health and jeopardling the lives of patients, often occur as the secondary consequences of severe attacks of dysentery. A memorable instance of this kind was the case of Richard Clark, which I presented to the academy on the 20th of November, 1879, exhibiting the successful result of lumbar colotomy performed on the 27th of March of the same year.

Another instance of very formidable obstruction of the rectum, in which very incomplete relief was afforded by the use of bougies, occurred in the person of an army surgeon in the war of the rebellion, who had suffered severely from camp dysentery, and who consulted me about his case several years after the commencement of the obstruction. If I had then been as familiar with the operation of colotomy as I am at the present time, I should have had no hesitation in recommending it.

An interesting case of obstruction of the bowels, occasioned by pelvic cellulitis, was published by Dr. Homans, of Boston, in the *Boston Medical and Surgical Journal* for October, 1878. The patient was a woman, thirty-two years of age, who had numerous chills after parturition, followed by fever and pain in the lower part of the abdomen, and, at a later period, by constipation, relieved at first by cathartic pills, but gradually increasing, and ending in complete obstruction. She was examined on the 20th of March, 1878, about two months after her confinement, and her uterus found to be fixed, the pelvic cellular tissue being distended and pressing upon the rectum. Left lumbar colotomy was performed on the 22d of March, and free evacuations took place through the artificial anus. About the 1st of June she began to pass fæces through the rectum, and on the 14th of July, when she left the hospital, nearly all her evacuations were through the natural channel. When she was last heard from, the artificial anus was reduced to a narrow fistula.

In the MEDICAL RECORD of January 10, 1880, is a notice of a case communicated to Dr. L. A. Sayre, in which obstruction of the bowels existed for more than two weeks, and was relieved by an incision into the colon in the right lumbar region, through which there was a copious discharge of liquid fæces with blood and pus. The cause of obstruction in this case was intussusception. About two weeks after the operation a portion of intestine eight inches in length was discharged through the rectum. The natural course of the fæces was gradually restored, the artificial anus was entirely closed, and the patient was restored to full health.

The dangerous character of obstruction of the bowels from various causes has long been familiar to the medical profession. But it appears to me that there has been too great a disposition to rely on the use of internal remedies, to the exclusion of surgical operations, in the treatment of these formidable maladies. In cases of intestinal obstruction which do not yield to internal remedies after a fair trial, I believe that true conservatism consists in the early performance of laparotomy or colotomy, the choice between these operations being determined by the nature and seat of the obstruction, as far as these conditions can be ascertained; and in cases of extreme danger, even when there is great obscurity as to the nature and seat of the obstruction, an effort should be made to effect relief by an operation, according to the old adage, "anceps remedium potiusquam nullum."

THE TREATMENT OF EMPYEMA BY VALVULAR DRAINAGE.

A PAPER READ BEFORE THE STATE MEDICAL SOCIETY AT ALBANY, FEB. 4, 1880.

BY A. M. PHELPS, M.D.,

CHATTANOOGA, S. T.

As we examine the authors, and read the different plans of treatment recommended in empyema—varying from the simple puncture with the trocar and canula to the radical operation of the Germans—one is as much amused as when gazing upon the body of the beautiful and changeable chameleon. Like the chameleon it seems to assume the color of the soil upon which it derives its nourishment. The Germans recommend one plan of treatment, the French and English another, and the Americans still another; but all seem to agree upon one point; and that is, that thorough drainage and ablution are the first principles, the "*sine qua non*" of all treatment.

I believe these are but *auxiliaries* in treatment.

But lying away down underneath all this, is a *first principle*—the corner-stone upon which all prognosis and treatment should be based. I allude to the *speedy obliteration of the pleural cavity by the greatest possible expansion of the lung.* This principle, and this alone, should be the one upon which all operative interference should be based.

The cure of an empyema is not effected by washing or evacuating the pus *per se*, but by the expansion of the lung and falling in of the chest-wall—one or both. The pleura adhering together brings about the object at which we aimed—viz., the obliteration of the pus-secreting cavity.

This process can never take place if pus is allowed to accumulate or decompose in the pleural cavity, and only very imperfectly *if air is permitted to freely pass in and out the drainage-tube during the act of respiration.* When the lung ceases to expand sufficiently to perfectly fill the pleural cavity, adhesions form between the pleural surfaces. What is the result of this? A large pus-secreting cavity; and unless kind nature bends in the chest-wall to obliterate this cavity that should have been filled by the lung, we find our patients dying from exhaustion, or going through life with a thoracic fistula. The lung, in this collapsed condition, is very prone to caseous pneumonia, and a large per cent. of cases die from this secondary malady, even after the empyema is entirely cured.

The question that should arise in every case of empyema is not, How shall I evacuate and wash this pleural cavity? but, How can I speedily obliterate it? The principles of treatment involved in the above are—

1st. Evacuation of the pleural cavity as speedily and judiciously as possible, thus preventing the permanent collapse of the lung.

2d. Thorough ablution and disinfection.

3d. Strapping the chest with strips of adhesive plaster over the affected side, following the direction of the intercostal muscles, thus keeping the chest quiet and allowing the pleural surfaces to unite.

4th. The introduction of a valved drainage-tube.

This keeps up pneumatic pressure upon the lung, by preventing air from entering the pleural cavity, and acting as a brace underneath the collapsed lung.

A large per cent. of these cavities are obliterated, and the patient cured by repeated aspiration in cases where it is admissible. It should be performed often enough to allow the pleural surfaces to come in contact and not be disturbed by pressure. If the pus is fetid, warm carbolized water, 1 part to 80, should be injected, and in quantities not so large as to make pressure sufficient to tear up adhesion, and all to be aspirated before the needle is withdrawn.

The aspirator and needle, which is my modification of Potain's, will be found to be the most convenient form of aspirator for washing and evacuating these abscesses, and for general use. It has a third tube with which to empty and fill the receiver, thus avoiding the necessity of removing the screw-cap; also the fluid tube extends to the bottom of the receiver. By this we can inject a cavity without inverting the receiver.

The needle has a movable point with a screw packing, which prevents air from entering the cavity, and also an obturator to dislodge any obstruction during aspiration. This instrument and the valve drainage-tube were made for me by J. Reynders & Co., New York, to whom I have presented the models.

A very valuable and interesting history of aspiration can be found in Gouley's able work upon Diseases of the Urinary Organs.

In cases not cured by repeated aspirations, the "radical operation" of the Germans, or free incision into the pleural cavity between the fifth and sixth rib in the axillary line, has become a favorite one with many of our most eminent surgeons.

While this operation possesses the merit of thoroughly evacuating and cleansing the pleural cavity, it accomplishes nothing toward the obliteration of the cavity by the expansion of the lung. Pneumatic pressure is taken off the lung by the air entering the pleural cavity. Plugging the drainage-tubes does not help matters, and it certainly prevents perfect drainage.

Then the operation punishes the patient more than is necessary to accomplish the end desired, and he almost always recovers with more or less deformity, owing to the non-expansion of the lung.

Fraentzell reports five recoveries in eleven cases. Moutard Martin reports five recoveries, seven deaths, and five fistulas in seventeen cases (Ziemssen).

Caseous pneumonia was found in a majority of the cases upon post-mortem. This was probably due to the collapsed condition of the lung. If valvular drainage had been instituted, pneumatic pressure kept up, and the lung capable of expansion, the per cent. of deaths might possibly have been diminished.

Chassaignac devised an operation which consisted in making two openings into the chest-wall, one in the sixth intercostal space, the other in the fourth interspace, two or three inches anterior to the first, and two ribs above. A perforated rubber drainage-tube was passed through the pleural cavity between the two, and tied together upon the outside of the chest. This is a favorite method with some of the English surgeons, and is highly recommended by Dr. Hingston, of Montreal, P. Q. He furnishes better statistics from it than the Germans from the "radical operation." This operation makes no application of the first principle, and owing to the fact that a large per cent. of cases are discharged with thoracic fistulas, owing often to the accumulation of pus in the posterior cul-de-sac below the drainage-tube, it seems as if some more perfect means should be devised. For his labors in operating and furnishing to the world statistics of operations which have been verified and proven true by operators in almost every country on the face of the earth, and which has almost completely revolutionized the treatment of purulent effusions, the profession owes its deepest debt of gratitude, not to Germany, France, or England, but

to the United States, in the person of Dr. Henry I. Bowditch, of Boston, Mass. He was the man who first introduced into practice capillary trocars attached to an exhaust syringe, and taught and proved that better results could be obtained in empyema from a simple puncture with a trocar and canula, and a soft rubber drainage-tube in the ninth interspace in the back, than from any other operation up to 1878.

The operation that appears to evacuate and cleanse the cavity most perfectly with the least punishment to the patient, was first performed by Drs. Baker and Southy, in Guy's Hospital, England, and reported in the January number of the London *Lancet* for 1878. They made two openings into the pleural cavity: one low down upon the diaphragm in front; the other between the ninth and tenth ribs in the back, as recommended by Bowditch. Rubber tubes were inserted into each opening, and the cavity thoroughly washed out by means of a rubber tube and funnel, the current of water passing from the front to the back opening. The patients recovered with but little deformity of the chest. This procedure drains and washes the pleural cavity thoroughly with as little inconvenience to the patient as possible, but the value of pneumatic pressure is completely lost sight of.

In the method which I propose, the greatest possible advantage is taken of this pneumatic pressure, by allowing no air whatever to enter from the outside during the whole time of treatment.

To accomplish this, I introduce into the posterior opening a tube which I made for the purpose, and

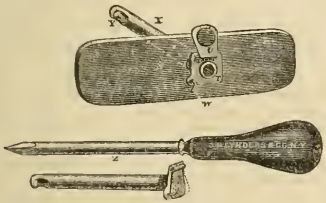

FIG. 1.—Drainage-tube, trocar, and rubber plate: S, rubber plate perforated by drainage-trocar, T; U, valve open; W, hook for valve; X, trocar; Y, opening in same. Below tube is shown with valve closed.

which is supplied by a valve opening outward. This tube is made of silver, of two sizes, according to the age of the patient, is fenestrated at its extremity, and is introduced by means of a trocar. Before penetrating the chest-wall the trocar is made to pass through a rubber plate (Fig. 2, D) which is applied to the outside of the chest, prevents air from entering around the tube, and, being held in place by adhesive straps (Fig. 2, G), keeps the tube in position. The valve is prevented from opening too far by a hook at the extremity of the tube (Fig. 1, W). A small india-rubber bag envelops the extremity of the tube and serves as a receptacle for the pus. This bag is easily cleansed by means of a stop-cock, M, in its lower extremity. If the discharge is very profuse, the pus may be drained through the rubber sac into a bottle carried in the inside lining of the vest. This tube should be introduced last and as pus escapes the same quantity of water should enter through the exterior tube. By this procedure the cavity will be more thoroughly washed, and no air will enter it. The point should be the ninth interspace in the back.

The anterior tube is introduced low enough to rest upon the diaphragm, and thus avoid the pressure upon it by the expanding lung. To do this, the pleural cavity should be explored with a hypodermic needle, to ascertain the attachment of the diaphragm to the chest-wall. The point selected should be upon a line drawn downward about one and a half inches external to the nipple upon the right side, in the sixth interspace if possible, taking care not to wound the liver and diaphragm, and two inches external to the nipple in the sixth interspace upon the left side, taking care not to wound the pericardium or diaphragm.

If, upon hypodermic exploration, pus is drawn off at the points designated, a large trocar and canula should be plunged into the pleural cavity in front, and while the pus is escaping a soft rubber tube (B), six inches in length, is passed through the canula, penetrating the pleural cavity one inch, when the canula is removed. The rubber tube should now be plugged, to arrest the further escape of pus. With a needle pass a thread through the rubber tube close to the chest-wall and make it fast to the chest by means of adhesive straps (C). This will prevent the tube from slipping in or out.

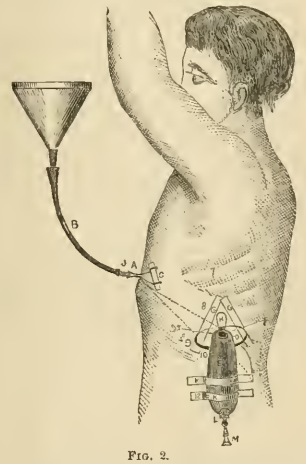

FIG. 2.

When both tubes are introduced, carbolized water may be introduced through the anterior one by means of a funnel, and the cavity can be thoroughly washed without the danger of any air entering, and with the advantage of draining from the lowermost parts of the suppurating sac.

This process should be kept up till the cavity is thoroughly cleansed, indicated by the water escaping unchanged. After the cavity is perfectly cleansed, the long rubber tube and funnel is removed, and the anterior tube A is plugged with a piece of wood. The valve H, of the drainage-tube, is now dropped to its place and made fast by the hook (See W, Fig. 1), and the rubber bag E (a rubber condom with a puckering string of rubber will answer the purpose) is placed over the end of the drainage-tube F, and the lower end made fast to the chest by strips of adhesive plaster, laid on as indicated in the cut.

This rubber bag can be removed, cleansed, and disinfected as often as the occasion may require. If the lung is incapable of rapid expansion, before dropping the valve H to its place and attaching the

rubber bag allow all the fluid to escape from the pleural cavity and air to enter it, as it will not give the patient so much distress as the weight of the fluid upon the diaphragm; then lay the patient in a position so that the drainage-tube will be at the highest point to facilitate the air rising to it, drop the valve H to its place, and direct the patient to make a few forced expiratory efforts, when the excess of air will rush out of the cavity, and the valve preventing its entrance upon inspiration, pneumatic pressure is increased by the calibre of the pleural cavity being diminished, and the lung, if it is capable of expansion, will do so rapidly. The rubber bag should now be attached as described above. The patient should lie upon his back during the washing. The adhesive straps K should be so adjusted as to prevent all pulling upon the drainage-tube. The washing should be repeated as often as the temperature rises from the accumulation of pus. The valve and tube and rubber plate should be kept carefully cleaned as often as it becomes unclean, and the valve kept in a good working condition. If the tube should be too long it can be removed, and with an ordinary file and pair of shears cut to the desired length. It should lie tight against the rubber plate to prevent articles of clothing from coming in contact with it, and penetrate the pleural cavity about half an inch, thus avoiding the irritating effect of a long drainage-tube, which is unnecessary. The piece cut from the tube should be put upon the trocar; this will keep the point of the trocar at its proper place, otherwise it would be too long for the tube. Flakes of fibrin obstructing the drainage-tube at any time should be moved aside with a stylet or a perforated catheter. If the anterior tube becomes obstructed by the lung expanding down upon it, a small catheter can be passed through the valved drainage-tube to the anterior chest-wall and the rubber tube and funnel attached to it. By this means a current of water is conducted to the front, and the cavity is perfectly cleansed by allowing it to escape through the valved drainage-tube. Baker and Southy recommended carbolized water: temp. 100°, 1 part to 80; also Condy's fluid, and—

℞.	Acid. salicylic	ʒ i.
	Alcohol	℥ iv.
	Aqua	℥ xxviii.
M.		

I used each of these, and have no preference. They each act by disinfecting or preventing fermentation. Strong injections should be condemned.

The cure is effected by the pleura coming in contact and uniting, this obliterating the pus-secreting cavity. Washing should be suspended when the discharge ceases to be fetid, and the pus healthy. When the lung is incapable of expansion—ceases to expand, or has fully expanded—the whole side of the chest should be surrounded with strips of adhesive plaster laid on in the direction of the intercostal muscles, crossing each other, and several layers in thickness. This will keep the side at rest, and favor union of the pleural surfaces.

Deformity of the thorax will depend upon the expansibility of the lung. If it is incapable of expansion, a large cavity which should be filled by lung will have to be obliterated by the falling in of the chest-wall. To facilitate this process portions of rib should be resected, when the health of the patient will admit of it; but if the lung is capable of perfect expansion, and the cavity is kept free from pus and disinfected, and the valved drainage-tube kept in good working order, patients ought to and will recover with no deformity, and I am almost inclined to believe that a large per cent of cases which have hitherto resulted in permanent thoracic fistulas will be discharged perfectly cured.

The following case illustrates this method of treatment:

Patrick H——, farmer, Irish by birth, aged 20 years; was first seen by me March 25, 1878. He had been suffering from pleuritis for ten days. On physical examination I found a large pleural effusion in the left pleural cavity. He had been unable to be down for the previous week. He complained of intense pain in the side, was somewhat delirious, tongue dry and furred, temperature 104°, respiration 30, pulse 130. There was considerable œdema of the left side, and also of the lower extremities. By the introduction of a hypodermic needle between the fifth and sixth rib in front, a small quantity of serum mingled with slightly fetid pus was evacuated. Prescribed diuretics, tonics, and blister. The twelfth day, or the third day of my attendance, I explored the effusion again lower down in the lateral region, and withdrew thickish, fetid pus. I think if I had made my first puncture at this point, I would have found pus, as it had evidently gravitated to this locality, and the serous portions floated upon it. There had been no remission of the symptoms. Temperature 104°, pulse 135, respiration 28 per minute. With the assistance of Dr. Mott, of our village, I introduced a trocar in the tenth interspace in the back, and three and a half quarts of thick, decomposed, fetid pus was discharged. The patient felt relieved, but owing to his feeble condition the operation was deferred until the next day, when I found the effusion was as large as the day before. I introduced a rubber tube for washing purposes in the sixth interspace in front, and reopened the posterior opening. There was a discharge of three quarts more of thick, fetid pus, making in all, at both operations, thirteen pounds, or six and a half quarts. I then introduced into the posterior opening a No. 12 catheter, for want of a better tube, three inches long, the inner end just penetrating the pleural cavity; then, by means of a rubber tube and funnel, I passed through the chest one gallon of warm carbolated water—temperature 100°, 1 part of acid to 80. The mass of decomposing fibrin was, of course, washed perfectly and disinfected. After the washing the temperature fell to 100°, but, as pus accumulated, the temperature would rise to 103° or 104°, when, after thorough washing, it would again fall to 100°. The washing was repeated from one to four times during the day and night; from one quart to one and a half gallons of water was used each time as the temperature was high or low, and pus profuse or scanty. On the fourth day after the operation, I removed the patient on a bed to our village, where I could oversee the management of him. The abscess was discharging about one pint a day at this time. The lung had partially expanded, and pressed upon the anterior tube the tenth day, so that I was obliged to remove it, as it did not rest on the diaphragm. This proved to be a serious embarrassment, as by simply injecting into the posterior tube I could not reduce the temperature after washing, and the pus became more fetid. As the condition of the patient at this point was very low and critical, I did not dare risk an operation to introduce the anterior tube again, but at each washing a No. 5 catheter was passed through the posterior tube forward to the front of the chest, and a current of water conducted through it to the

anterior cul-de-sac. This answered the same purpose as the anterior tube, and by this means the cavity was thoroughly washed from one to four times a day for five weeks. The cavity at this time only discharged about two ounces a day, but during the whole time before it discharged from two to eight ounces.

The patient now seemed to be improving, and washing was only repeated once a day for a few weeks, when it was stopped entirely. One serious difficulty in injecting through the posterior tube without having any escape from the cavity, was the tearing up of new adhesion between the pleural surfaces, thus exciting inflammation. This accident did not occur after injecting through the inner tube or small catheter was commenced, as the fluid was permitted to freely pass out through the drainage-tube, and no pressure was made within the cavity. I noticed that, at the beginning of the second week from the time of operating, the lung stopped expanding, and the pleural cavity would be filled with air, do the best I could to prevent it. Now, the cavity had to be filled either with pus, water, or air, and the air did not seem to distress the patient so much as the pus or fluid, where it was retained by plugging the drainage-tube; but it prevented the expansion of the lung. This led me to have made the valved tube which I introduced the second week after the operation. Through this the pus and fluids could drain, and, on expiration, air rushed out of the cavity and was prevented from entering on inspiration. The lung and chest-walls being thus pulled upon from pneumatic pressure, the lung began rapidly to expand, and at the end of four months perfectly filled the cavity with scarcely no perceptible deformities of the chest, and, October 1st, six months after operating, I removed the drainage-tube and discharged the patient perfectly cured. I think the tube might have been removed at the end of the third month. He is now at work in the silver mines of Colorado and is perfectly rugged. Dr. Wilber, of Constable, Dr. Wentworth, of Malone, and Dr. Chisholm, of Chateaugay, saw the patient with me, and examined him when he was under treatment. By actual measurement, the amount of water passed through the chest during three months was sixty-four gallons.

The patient was kept upon animal broth, milk, etc. Cod-liver oil, iron, wine, and quinine were given freely. This was, I think, a case of pleuritis acutissima of the Germans.

I am very sure, as the record of temperature will show, that unless thorough ablution had been performed, and the pleural cavity speedily obliterated by the lung expansion, the patient must have died of acute ichorization of the pleural sac.

I used a great amount of ablution because the patient could stand it, but I would not recommend this as a routine for all cases. But if the discharge is fœtid, I would use as much ablution and disinfecting as my patient could endure, remembering that it is the last straw that may break the camel's back.

New York Diet Kitchen Association.—The seventh annual report of this institution shows that it is doing an extensive and useful work. Its object is to supply food to the sick poor, doing for them in this regard what dispensaries do in the way of medicine. It thus forms a very important adjunct to the latter institutions, as testimonials from their medical officers show. The Association has three branches, and during the past year has supplied food to over 3,000 patients.

HIGH TEMPERATURE IN PUERPERAL FEVER.

By W. R. UPHAM, M.D.,

YONKERS, N. Y.

Case I.—In the latter part of last December I attended a young woman, aged 22, in her first confinement. She had always enjoyed good health, and had been remarkably free from any bad symptoms during the period previous to her delivery. The labor was rather tedious and painful, but she was safely delivered of a large-sized female child. She did well until the third day following her confinement, when, in the evening of that day, she experienced a severe chill, followed by a high fever, the thermometer, one hour after the chill, showing a rise of 105½°. This was entirely unexpected, as every precaution had been used, the patient having been kept very quiet; her diet had been simple and light, and nothing had occurred to excite or disconcert her. The next day I was informed by the nurse that the lochia, which had been quite free up to this time, was very scanty, and the odor offensive. The abdomen was moderately tympanitic, quite painful to the touch, particularly in the inguinal regions, and the passage of urine was attended with much pain and difficulty. During the following six days the patient's symptoms were of such a character as to give rise to great anxiety. She laid most of the time upon her back, with the knees flexed upon the abdomen, the straightening of the limbs being attended with much pain. The lochia became entirely arrested, the abdomen greatly distended and very tympanitic, obstinate constipation at first, but followed, in about forty-eight hours, by a slight diarrhœa; great difficulty in passing water, and the flow of milk was arrested. She also suffered most of the time with a severe pain in the frontal region, and the countenance assumed an anxious expression and became of a dusky hue. There was much loud delirium, especially when the fever was the highest. The temperature, taken in the axilla, would range from 101° to 103° in the morning, and from 104° to 106¾° in the evening, the thermometer registering the latter figures on the seventh day after confinement. Patient experienced a chill of greater or lesser intensity nearly every day, and these were invariably followed by a high fever. The pulse was most of the time weak and rapid, reaching 150 beats at the time of the highest temperature. On the tenth day the temperature fell considerably, the discharge from the uterus became more abundant, the tympanites somewhat subsided, the pain was not nearly so severe, and the patient soon made a rapid recovery.

The treatment employed was as follows: Poultices and turpentine stupes over entire abdomen; from twenty to twenty-five grains of the sulphate of quinine in the twenty-four hours; sulphate of morphia in ¼ to ½ grain doses, administered at sufficient intervals to keep the respirations at about ten per minute. Sponge-baths and uterine douches, to be repeated at intervals of three hours during the day and every four hours during the night. The baths and douches had unquestionably a marked influence upon the temperature, the latter always falling from one to three degrees after their use, and the patient invariably feeling more comfortable and easy, often asking if they could not be given more frequently.

Case II.—On the 16th of last month was sent for, late in the evening, to see a young woman, who had been delivered of a child the week previous. On

seeing the woman, I was informed that the lochia had been scanty from the very first, that she had had more or less fever most of the time, it being greater in the afternoon, and diminishing toward morning, was at times quite delirious, and again would be in a semi comatose state. The patient, I was told, had always enjoyed the best of health up to the time of confinement, she had had rather a tedious labor, and was partially under the influence of chloroform during the last three hours of the same.

On examination, I found the abdomen soft, no tenderness except over fundus of uterus, temperature, 101½°, pulse, 120. Mildly delirious and complaining of great pain in the head. Lochia very scanty and offensive, and great difficulty in passing the water. Had slept but very little for the past three days and nights. Ordered at once a foot bath of hot water and mustard, hot poultices to be applied to abdomen. Quinine, in five grain doses, to be repeated every four hours. I washed the uterus out thoroughly with a solution of carbolized water, of the strength of one to fifty, and gave her a wet pack. Ordered the intra-uterine injections to be repeated every two hours. In one hour after the intra-uterine injection had been given, the temperature had fallen to 102°.

17th.—Morning temperature, 103°; pulse, 124. Evening temperature, 105½°; pulse 136. Pain over fundus of uterus more severe; the poultices over bladder have relieved patient, and she passes her water without difficulty. Much more rational; takes her nourishment well, which is administered in moderate quantities and at frequent intervals.

18th.—Morning temperature, 102°; pulse, 110. Evening temperature, 103½°; pulse, 116. Has been comparatively comfortable most of the day. Pain in the head greatly relieved. Urinates freely and without pain; tenderness over uterus somewhat less; washings from womb tinged with blood and some clots, and shreds of membrane came away with each injection.

19th.—Morning temperature, 101½°; pulse, 104. 2 P.M., temperature, 107½°; pulse, 154. 6 P.M., temperature, 104½°; pulse, 130. 8 P.M., temperature, 105½°; pulse, 138. 10 P.M., 104½°; pulse, 134. Midnight, temperature, 104°; pulse 130. The temperature of 107½° was preceded by a chilly feeling, which lasted for three quarters of an hour. Wet packs were given every hour, and the intra-uterine injections at the same intervals. In the evening, being very restless and unable to sleep, one-sixth of a grain of morphine and ten grains of chloral hydrate were administered with good effect.

20th.—Morning temperature, 102°; pulse, 100. Evening temperature, 100½°; pulse, 90. Passed a very comfortable night, and feels greatly refreshed this morning. Pain much less over womb. Gave the intra-uterine injections at intervals of four hours only.

21st.—Morning temperature, 100½°; pulse, 92. Evening temperature, 98½°; pulse, 76. The bad symptoms have nearly entirely disappeared; the head is clear, and the appetite returning. From this time on the patient did remarkably well, regaining her strength rapidly, and making a most satisfactory convalescence.

The two cases are interesting in connection with the high temperatures, 106½° in the former, and 107½° in the latter, and the decided influence that the intra-uterine injections in conjunction with the wet packs, had in subduing the fever. In every instance, where the temperature was excessive, did the injections cause a marked diminution in the fever, generally within the hour—and the ease and comfort afforded the patients by their use is not to be estimated.

Progress of Medical Science.

HUMANIZED LYMPH VERSUS ANIMAL VACCINE.—A letter from Dr. Cameron, M.P., that appeared in the *Times* newspaper, urging the introduction of heifer vaccination into the system of public vaccination of England, has called forth a reply from Dr. Edward Ballard, of the Medical Department in the Local Government Board. In this reply two points are made, and statistics adduced to support them; the first is that the protection afforded by vaccination with humanized lymph is *not* failing, the second is that inoculations with humanized lymph present a smaller percentage of failures than is found where animal vaccine is used. The first vaccination act was passed in 1840, and vaccination was made compulsory in 1853. Examining the mortality statistics of England and Wales from 1838 to 1878, and averaging the small pox mortality for periods of five years, there is found a steady decrease from 571 deaths to every 1,000,000 of inhabitants during the first five years, to 97 per 1,000,000 during the last four years. During the period of five years ending 1874, the rate jumped to 445, but this was due to the very severe epidemic of 1871–72, which spread from the French army over all Europe. These figures, Dr. Ballard thinks, effectually disprove the assertion that the protection afforded by vaccination is weakened by prolonged cultivation of the cow-pox in the human system. Comparing the results of vaccination in Amsterdam, the Hague, Rotterdam, and Berlin, where animal vaccine is used, with those obtained by Dr. Cory, the chief vaccinator at the national vaccine establishment, vaccinating with humanized lymph at Surrey Chapel, he found: (*a*) complete success of all insertions in children vaccinated: at Amsterdam and the Hague, 34 per cent.; at Rotterdam, 54; and at Berlin, 21. (*b*) Complete failure of all insertions in children vaccinated: at Amsterdam and the Hague, 2.2 per cent.; at Rotterdam, not stated; at Berlin, 7.1. (*c*) Insertion success (calculated), that is to say, the number of vesicles produced per 1,000 insertions: at Amsterdam and the Hague, 700, or less; at Rotterdam, not stated; at Berlin, 678. The results obtained at Surrey Chapel in the vaccination of the last thousand children vaccinated with fresh lymph from the arm and leg, five scarifications, were as follows: (*a*) Complete success of all insertions, 97.8 per cent. of all the children vaccinated. (*b*) Complete failure of all insertions, 0.0. Insertion success, *i. e.*, number of vesicles produced per thousand insertions, 978. As the gentlemen were in each instance among the best and most experienced operators, in the one case with animal, and in the other case with humanized lymph, it is to be supposed that the results were the best producible in each instance. Dr. Ballard regards the danger of imparting syphilis in arm-to-arm vaccination as infinitesimal, since during his experience of several years as an inspector of public vaccination, he has never seen or heard of such a case; the only occurrence of the kind of which he has any knowledge being the case brought to the knowledge of the profession several years ago by Mr. Hutchinson.—*The Practitioner*, February, 1880.

A SUDDEN OUTBREAK OF SCARLATINA SUPPOSED TO BE CAUSED BY INFECTED MILK.—An epidemic of scarlet fever occurred last August in Fallowfield, a village three miles from Manchester, the origin of which was investigated by Dr. Hubert Airy, a medical in-

spector of the Local Government Board. The only common tie between the affected families was their milk supply, and, owing to the frequent vomiting, and the severe and continued diarrhœa present in most of the cases, the opinion prevailed among the medical men in attendance that in all probability the poison entered the system through the alimentary canal. On investigation it was found that one of the milkers lodged at a house in which his little grandchild was lying sick in the desquamative stage of scarlet fever. Keeping these conclusions regarding milk as much as possible in the background, inquiries were at first directed to other possible modes of fever dissemination, but no other thing was found that would explain the circumstances of the case. The produce of each cow was poured into the gathering-can, and from it, when full, into one of two delivery-cans; the first half of the milking being thus placed in one delivery-can, and the second half into the other. There was no order observed in milking, each milker going from one cow to the next, so that it was impossible to trace the probable destination of the milk handled by any one milker, which, if discovered, might explain the fact that the epidemic was confined to a limited number of the families supplied from this dairy. The supposition is that the old man's hands became contaminated from touching the child, or some article of clothing worn by the child on one or more mornings before leaving home, and that the milk handled by him was unequally distributed to the two delivery-cans. One case reported by Dr. Thorburn, of Manchester, points pretty clearly to the dairy as the infecting focus. On August 4th, a child, E. B., residing more than two miles from Fallowfield, was attacked with the scarlatinal rash and fever. There were smart premonitory symptoms on the evening of the 3d. She had returned with the rest of the family from an out-of-the-way country residence where scarlatina was untraceable, on August 1st. On the 2d, she, with four others of the children, was sent to the dairy, whence the family intended to get their regular supply, and while there, drank some milk. Being more fond of milk than the others, she probably had the largest quantity. This history, Dr. Thorburn remarks, taken in connection with the Fallowfield outbreak, "seems to establish an almost certainty that the child was infected by one drink of milk, that her brothers and sisters, who tasted more sparingly at the time, were unaffected, though one of them was very feverish for a few hours, and that the period of incubation can have been little over thirty-six hours."—*The Practitioner*, February, 1880.

On the Employment of Iron and Oxygen in Anæmia and Chlorosis.—Professors Hayem and Regnauld, who have been studying the mechanism of the action of iron preparations, were led, by the failure of iron to improve the appetite in many cases of anæmia and chlorosis, to try inhalations of oxygen as a substitute for it. Under their use they found that the appetite increased, that the digestion improved, and that the quantity of nourishment taken daily was augmented three or four fold. In spite, however, of the improved color and increased weight of the patients, the red blood-corpuscles remained unchanged, and the improvement was only temporary, the patients again returning to their previous condition as soon as the inhalations were discontinued. When, however, the inhalations were combined with the internal administration of iron, the general improvement was attended by a rapid change in the red blood-corpuscles, which soon became normal both in quantity and quality. It results from these experiments, that: 1st, the active preparations of iron have the property of making blood, of furnishing to the red blood-corpuscles in particular, a specially serviceable nutritive element; and, 2d, that the iron preparations alone may fail, especially in dyspeptics, and that it may be necessary to supplement them with inhalations of oxygen in order to cure the chlorosis and anæmia completely.—*Allg. Med. Cent. Zeit.*, No. 98, 1879.

On the Treatment of Phthisis with Inhalations of Benzoate of Sodium.—In September of last year, Dr. Kroczak reported fifteen cases of phthisis that were treated with inhalations of benzoate of soda in the Innsbruck hospital, with the most astonishing success. Three of the patients had been admitted to the hospital in a, so to speak, moribund condition, but they were discharged cured after only a few weeks' treatment. Such wonderful success naturally led to repeated trials of the remedy in other places, and the *Berliner klin. Wochen.*, for Dec. 8, 1879, contains papers giving the results of two observers. Dr. Guttmann, of Berlin, has employed the inhalations in thirty-one cases of phthisis, most of them far advanced and with large cavities. He has used a five per cent. solution, and made the patients inhale from 5 to 50 grammes of the salt daily, or from 100 to 1,000 grammes of the solution. The trials were continued from one to three weeks. The conclusion deduced from these cases was that the benzoate of soda has absolutely no curative and even no beneficial action on phthisis. The fever was not reduced, nor was it even influenced in its variations by the treatment. The emaciation and the night-sweats, when present, were likewise not benefited in the least. During the inhalations the patients coughed and expectorated freely, and were correspondingly relieved for a short time afterward, but in no case were the cough and expectoration permanently relieved. On the other hand, the inhalations frequently caused nausea and vomiting, and in one case, at the autopsy, a general, recent capillary hyperæmia of the gastric mucous membrane was found. In two cases the inhalations were followed by hæmoptysis. Nine of the thirty-one patients died, and at the autopsies nothing was found to indicate that a process of resolution had begun in any of the affected portions of the lungs.

Dr. Wenzel, of Berlin, gave the inhalations of benzoate of soda a thorough trial in ten cases of phthisis, five of which were in an advanced and five in an early stage of the disease. The results, like those of Dr. Guttmann, were entirely negative. The phthisical process was not influenced in the least by the treatment, either in the mild or the severe cases, and it could not even be said that the symptoms were temporarily relieved by it. Four of the five bad cases died while still under treatment, and the remaining patient was rapidly sinking. In one of the mild cases the lung began to break down and a cavity formed during the treatment. The benzoate of soda exerted no influence at all on the fever in any of the cases.

The Annual Report of the Eastern Dispensary for 1879 shows that 22,538 persons were treated in the past year, this being a slight decrease over that of the year before. For the past nineteen months the dispensary has adopted the system of charging a small fee for medicines. Only 1¼ per cent. of the applicants have refused to pay this fee, and the success of the measure seems to be assured.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE HEALTH OFFICER OF THE PORT OF NEW YORK.

In a recent number of the RECORD we made a quotation from a venerable professor in a medical college in this city, who is in the habit of telling his students to shun political life. Indeed, we know that this same professor once severely rebuked a young medical man who went to his office to obtain his signature to a petition on a matter affecting the general health of the State. His remonstrance was very emphatic, and he warned the young practitioner that whatever else he might do, he had better keep out of politics.

Despite this advice, our opinion is that if the medical profession of this State continues to keep out of politics, as its representative men now do, politics will work sad havoc in the hygienic and sanitary affairs of the commonwealth. If they never meddle with politics, politics will certainly meddle with them. The recent nomination for health officer of this port suggests this line of remark. It was promptly confirmed. The only remonstrance, as far as we have been able to learn from the daily press, was that from a veteran member of the Senate, who doubted whether a man who lived so far from salt water should be made health officer of the port of New York. We respectfully ask where were the representatives from New York City when that vote was taken? Especially do we inquire where was the gentleman who represents the culture and wealth of this city, that he did not rise and make one inquiry about this important appointment? He is certainly well acquainted with representative men in our profession in New York, and he might well have inquired as to the professional career of Dr. Smith, the gentleman who has been placed in this position by the Governor and the Senate. The new Health Officer is a very respectable man, however, and a member in good standing of the regular profession; he has served his country as a member of Assembly from Allegheny County for two terms, and he is also an active member of the State Committee of one of the great political parties. But, after the most careful examination—an examination made the more difficult on account of our inability to get facts other than political in the history of this gentleman, we fail to find that he has ever rendered any considerable medical service to the profession or the State, except such as may have been given in private practice in his own county and a service more or less lengthy as a surgeon of volunteers during the rebellion.

The port of New York is the most important one in the country. Its quarantine arrangements involve the health of the whole union. The officer who superintends these arrangements, who directs the carrying out of the details of their management, should be the best man, trained by years of experience and study in the special department of sanitary science, that can be found in the State. The interests involved are vast. They affect the health of the whole community. Yet in the face of these facts, which are indisputable, and in face of the fact that we have been undoubtedly preserved from epidemics by the wise supervision of one of the most distinguished of our medical men whose term as health officer has just expired, the Governor of the Empire State has had the temerity to fill his place by an appointment which has surprised the entire medical profession. This action can but be regarded in a single aspect—namely, that it is an appointment solely for political purposes. One of our former governors once informed a prominent medical man of this city that he had a list from which to nominate a health officer for this port, containing a large number of names recommended by the medical profession. He avowed his intention, with the aid of that eminent medical adviser, to reduce the list to two who should be the best representatives of their class, and from those two he proposed to select the one who had the most political influence. Certainly, there could be no fault found with such discrimination. There is no valid objection to the appointment of a man who has political power, if besides that he has the complete confidence and respect of the medical profession because of his professional ability.

Another governor also informed one of the editorial staff of this journal, that, when he named a man for the position of health officer, he proposed to nominate one who had won a high place in medicine, and while the gentleman whom he did nominate was a personal political adherent, no criticism could be made against his professional fitness for the office.

We feel sure that Governor Cornell has not followed this example of either the one or the other of his predecessors. The facts are all against him. A medical practitioner has been appointed who is unknown to his brethren at large in this city and

throughout the State, but who has the credit among politicians of having done a great deal of hard work in county and State committees for the party to which he belongs.

We sincerely trust that he will now spend all his best energies in the work so ably inaugurated and carried out by Dr. Vanderpoel. We hope that he will gather about him, as assistants, men who are well versed in all the laws of epidemics, the construction of hospitals, the fumigation of vessels, the periods of quarantine, and other subjects which are of much more importance to national health than the management of a political convention. What we have said should in no way be considered as expressive of hostility to the gentleman named by the Governor, for we feel none. We regret very much that the executive head of this great State has seen fit to make an appointment which does not have as its chief merit the fact that the appointee has distinguished himself in his own profession. Dr. Smith now has a position where a large and exact knowledge of sanitary affairs will not only be useful, but absolutely indispensable. Without it, however much executive ability he may have acquired in the political world, he will be an inefficient and dangerous health officer.

The Governor has sinned against light in this step. His acquaintance among the profession of this city is large. We happen to know that he has had ample opportunities to learn their views concerning the necessary qualifications for a health officer. He had sufficient knowledge to have chosen one of the very best of our representatives, and, at the same time, to have selected a disciple of his own political faith; or, if embarrassed by the richness of choice, he might have allowed the recent incumbent, who is said to be identified with the dominant political party, to remain in office. But he has chosen to disregard the opinion of the profession, and to use his high office as if it were his personal property, and as if his appointments were to be such as would carry out his political and personal wishes. The Czar of Russia could not have been more autocratic.

If the medical profession continues to submit to this kind of encroachment upon its vested rights as the sanitary advisers of the commonwealth, then they had much better settle down to being humble prescribers for the accidents and ailments of the families which they attend, and never again lift their voices to direct the sanitary affairs of the State. An executive, however chosen, is the executive of the whole State and its interests must be paramount in the consideration of any appointment. Even our friends of the daily press are almost unanimous in the assertion that this responsible medical position has been given on a political consideration.

From one other medical appointment which has been made by our Governor we ought, perhaps, to be thankful that we have in this position a member of the regular profession, and that is all the occasion for congratulation or thankfulness that we have as yet been able to get from his present action.

We now return to the point where we began. If the American medical profession does not see to it that there are representative physicians in its legislative councils, where so many matters pertaining to the sanitary affairs of the State are constantly being brought up, these important affairs will soon be in the hands of mere politicians. Meddling with the details of politics certainly can never be safely indulged in by a man engaged in active professional work; but on the large questions, however political they may be, we should have such representatives as Andrew Clark, Lyon Playfair, Dominick Corrigan, James Paget, have been, or will be, in the English House of Commons. The great city of New York at this moment should be represented by a physician who, when a medical nomination is made "by and with the advice and consent of the senate," would state with authority whether that nomination will subserve the best interests of the State. No severer blow can be struck at the aspirations in our State for the hygienic advancement of the people, than the appointment to the most responsible sanitary position, perhaps, in the country, of a gentleman who lacks many of the qualifications necessary to the proper discharge of the duties of this exalted position. In behalf of the profession which we represent; in behalf of the public, of whose health that profession are the guardians; in behalf of the gigantic interests of the great commerce of this city,—we ask our governor if he can conscientiously say that he has considered the proper requirements in the appointment which he has just made?

THE USE OF THE BROMIDE OF ETHYL.

The paper on the use of bromide of ethyl, by Dr. Levis, in our previous issue, and the communication by Dr. Sims on the same subject, in this number, present different sides of a question of great importance to the profession. It seems almost a pity that after so much of good was said for this anæsthetic by a gentleman of such experience and discrimination as Dr. Levis, that so soon afterward Dr. Sims should be ready with the report of a case of death following its use. Still, such an account comes in good time, and the profession will feel under obligation for the promptness with which it is made public.

The remarkable and somewhat extensive experience of Dr. Levis seemed to prove that in bromide of ethyl we had an agent which could take the place between chloroform and ether, and combine the benefits of the two without incurring danger to the

patient. The facts as related by Dr. Levis were strikingly in favor of such a belief, and every surgeon who read his article must have felt a willing need to give the drug a trial. The rapidity of its action, the small quantity used, the readiness with which the patient recovered from its effects, the comparative freedom from vomiting, and the non-inflammable character of its vapor were points which were calculated to impress every man with the practical value of the anæsthetic. But, above all, it was considered safe. That there should be a reasonable presumption to the contrary of such opinion there can be no doubt, after a careful study of the case in the present Record. With many the proof as to the cause of death being the anæsthetic will be absolute, while, with the great majority of surgeons, there will be enough of doubt as to its safety to deter them from using it at least in protracted operations. It does not appear that the particular manner of administering the ethyl in Dr. Sims's case had anything to do with the result. On the contrary, every precaution against accident seems to have been taken. The best proof of this is that the patient did not suffer from any of the symptoms which could be referred to carelessness on the part of the administrator. The really urgent symptoms occurred after the period when any accident could have been expected from such a cause. Concerning the purity of the article, there could hardly be a question. It was precisely the same manufacture of ethyl which had been used in Philadelphia by Dr. Levis with the best of effects. But here we come to a point where the parallelism of the unfortunate case with the two hundred successful ones in Philadelphia ceases. In none of Levis's cases did the period of ethylization exceed forty minutes. In Sims's case the period was prolonged for a full hour and a half. In the absence of equally marked differences, it would seem that the element of time consumed in the administration and the consequent increased quantity used have a very important bearing in summing up the result. What might be innocuous when used for forty minutes, might be fatal when that period of time was extended to an hour and a half.

Before undertaking to analyze the symptoms in the given case before us, we may be permitted to assume that to the bromide of ethyl was at least indirectly due the cause of death. That is to say, it is easy to believe that the patient would not have died at that particular time, and in that particular manner, if the anæsthetic had not been used. When we attempt to make out any direct relations between supposed causes and effects, we are engaged in an entirely new study, and are compelled to start *de novo*. It is true the same result might have obtained if ether had been administered to the same patient.

If the only symptoms from which the patient suffered were those of uræmic poisoning, such a possibility of fatal result might be entertained. It is well known that etherization invites fatal coma in cases of Bright's kidney. Dr. Sims refers to two such in his paper. Although there were undoubtedly symptoms of uræmia present, they were by no means so prominent as those which referred to another kind of poisoning. And here by a method of exclusion, we get down to the symptoms in this case which are peculiar, and to the indications which they furnish, which, to say the least, are instructive and significant. Aside from all other symptoms, we notice those of an active irritant poison. The phenomena which were presented were quite distinctive, and in the absence of any proof to the contrary, would appear to belong to the continued action of the particular anæsthetic employed. At least, the symptoms were not only those of an irritant poison, but pointed directly toward those of bromism proper. There was the persistent suffusion of the eyes, the strange restlessness of the patient, and the vomiting—but, above all, the obstinate cholerine. The odor of the hydrobromic ether in the discharges and in the breath of the patient, its permeation into the texture of the internal organs, and its persistence so long after the anæsthesia, are facts which should have their due weight in evidence of direct poisoning. Uræmia may have had considerable to do with the death of the patient; but with such a condition of kidney, independent of the ethylization, it is difficult to explain all the symptoms. It is quite possible that the two conditions may have combined in producing the unfortunate result; that ethylization, by introducing an extra poison in the circulation, may have turned the balance against the patient. Even in such an event it is impossible to escape the conviction that ethyl was an active and determining factor in the result, and that, all things being considered, it is by no means an absolutely safe remedy. It has proved useful in short operations, and may, with certain precautions, continue to be so employed, but we cannot believe that any surgeon, in the light of the evidence furnished by Dr. Sims's case, will take the responsibility of using this ether for prolonged periods. The whole question is now so entirely *sub judice* that it would appear to be wiser to attempt to answer it by further experiments upon the lower animals, rather than upon man.

REFORM IN MEDICAL CHARITIES AT PHILADELPHIA.

THE Committee appointed by the Philadelphia County Medical Society to examine the subject of the abuse of medical charities made its report on the 10th ult. The document represents an investigation covering two years, and contains a good deal that is of value in the way of statistics and suggestions for reform.

The Committee began its work by ascertaining whether the general impressions and beliefs as to

the abuses of medical charities were really well founded. Investigation showed that they were. Thus it appeared that in 1877 one hundred and twenty thousand persons had been prescribed for at the different dispensaries, and a very great number of instances were discovered of persons with abundant means who availed themselves of free dispensaries. Fifty-nine cases of this kind are reported specifically, and in the list we notice many persons owning property assessed at $5,000 or $8,000.

The Committee, having satisfied themselves that the evils were present and flagrant, then addressed inquiries to the various dispensary and hospital officers. It was desired to learn the views of these persons upon the matters in question, and to obtain from them such suggestions as might help in securing a better state of affairs. The universal opinion given in answer to the inquiries was that there were great abuses, and that there was great need of careful investigation into the position of applicants for medical relief. At the same time, it did not seem practicable for the medical charities to undertake these investigations. This was found to be the universal feeling, and is quite a matter of course. Medical men have not time to bestow charity and investigate the case also. And institutions for medical relief have not money enough to support a corps of officers for such investigations.

When arrived at this stage of the matter, the committee received an offer of help from the Society for Organizing Charity. It was suggested that a plan of coöperation between the Ward Associations of this society and the various dispensaries might be devised. A plan for such coöperation was drawn up, and was subsequently approved by the Philadelphia County Medical Society. It recommends the assignment of a certain territorial district to each general dispensary, so that overlapping may be prevented and all parts of the city may be supplied with opportunities for medical relief. It also recommends the small-fee system, and would oblige all who cannot pay this fee to get a certificate from the Society for Organizing Charity before medical relief be given. Another recommendation is that applicants with families in receipt of nine dollars a week or more, unmarried persons receiving six dollars or more, and persons living out at service, shall be refused treatment, as being able to pay a physician.

It appears from a review of the committee's report that although the abuses of medical charity are not so great proportionately in Philadelphia as in New York, yet the system of medical relief there is not so well organized as it is with us. Some reform has been greatly needed, therefore, and the present Committee has done much to set it on foot. They emphasize the fact that investigation of the condition of those applying for medical relief is of the first importance. The correctness of this position will be admitted, and the fact that there is a society which is willing to undertake this work of investigation will make the correction of the present evils much easier.

MEDICAL SECRET SOCIETIES.

We have already referred to the very extraordinary action of the Philadelphia County Medical Society in forbidding all reports of its proceedings to be published first-hand in any but its chosen organ. *The Clinical News* has also complained of this resolution of the society, and it has printed two letters from one of the members, in reply to the strictures that have been made. The only defence which can be made appears to be that the proceedings of the society, as reported in journals heretofore, have been garbled and incomplete. In self-defence, therefore, the society was obliged to have the proceedings printed under its own supervision. This is all very well so far as it goes; but it forbids all reports except the supervised one, and it has chosen for its medium of publication a bi-weekly journal of comparatively small circulation. Other journals are kindly allowed to copy from this; but this is a slight concession, as it is not the practice of the better class of journals to publish society proceedings second-hand. It seems to prefer no circulation at all, therefore, to the possibility of an incomplete report. Furthermore, while the issuing an authorized report of proceedings is a sufficiently proper measure, it is not wise to forbid other medical journals from obtaining first-hand reports at the same time if they chose. By the course which the society has adopted it practically locks up its proceedings, narrows its influence to the smallest possible medical circle, and stultifies its members in the estimation of the profession at large.

RIOTOUS MEDICAL STUDENTS.

It has been customary at the medical commencements of the University of Pennsylvania for the academical students to fill the upper galleries and sing "Saw my leg off" during the progress of the exercises. The rendition of this surgical melody, accompanied with the rhythmical fall of the boot-heel, though a venerable custom, has never been officially recognized as a part of the regular programme, and has, indeed, at times been strongly protested against.

At the last annual commencement the chorus was so loud and the boot-heels were so demonstrative that the medical students could stand it no longer. They threw off their caps and gowns and rushed upstairs, intending to expel their disturbers. At this point the police came in and took a large number of both parties in custody. In subsequent reports in the daily papers the medical students (of course) got all the blame, and a New York daily gravely deplored

the bad manners of the prospective members of the noblest of professions. From the facts that have been given, however, it looks as though the medical students had no other course to pursue. They could not sit still and submit to a continual insult.

The medical student gets enough blame at all times, and has, indeed, a character very much worse than he deserves. We have about fifteen hundred of them in this city during half the year, all, of course, young men, and with the usual exuberance of spirits; yet for a number of years there have been but three cases of arrest here among them, and these cases were promptly discharged the next morning with a rebuke to the policeman for his action in the matter. This speaks very well for the character of our students, and is certainly more than can be said of those of London and Paris. Most medical students who go through a full course in city colleges have possibly a bibulous stage; but, as a rule, they have not time for much dissipation. They find that they have to work hard in order to cover the ground before them and get through the examinations. Consequently, sobriety is the rule, and the career of the American medical student is, on the whole, a steady and creditable one. He should have his due for this.

Reports of Societies.

THE NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 18, 1880.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 8.15 P.M. The minutes of the last stated meeting were read by the Secretary, DR. EDWIN F. WARD.

The Statistical Secretary, DR. F. V. WHITE, announced the death of Dr. Benjamin I. Raphael.

DR. LAURENCE JOHNSON, Librarian, then read a

MEMOIR OF EDWIN R. PURPLE,

late Assistant Librarian, in which was paid a fitting tribute to one who generously donated both time and money in the upbuilding of the Academy's library.

The President introduced to the Academy, and invited to take seats upon the platform, Drs. Levis and Roberts, of Philadelphia, and Dr. Nichols, Superintendent of the Bloomingdale Insane Asylum.

The second paper for the evening was by Dr. A. C. POST, which appears in this number of the RECORD (See p. 365).

A CASE OF ENTIRE OBSTRUCTION OF THE BOWELS FOR THREE WEEKS—TEMPORARY RELIEF AFFORDED BY COLOTOMY.

The paper read by Dr. A. C. Post on the above subject being before the Academy for discussion,

DR. JAS. L. LITTLE referred to a case as follows: About four years ago he saw a patient in Vermont who had had complete intestinal obstruction for about sixty days. The patient had had difficulty in having passages from the bowels for some eight or ten years previously, and finally complete obstruction occurred. For two weeks the patient had vomited more or less, had hiccup, the abdominal walls were distended, and the only relief which Dr. Little could suggest was in the operation of colotomy. No definite cause for the obstruction could be found by digital examination. He had a great variety of internal treatment, but entirely without benefit. Colotomy was performed, and an enormous quantity of fæcal matter, at least three quarts of semi-solid clay-colored material, came through the wound during the first twenty-four hours after the operation. The patient recovered, was still living, and yet had the artificial anus. One peculiarity of the case was the difficulty in keeping the wound open. About two months after the operation the parts were united completely, and Dr. Porter, the attending physician, was obliged to make an incision, empty the colon, and afterward to maintain the tegumentary opening by means of tents. The opening, however, closed the second time, and the patient went without any discharge of fæces for six weeks. The knife was again used, but the wound again closed entirely; and that was repeated in all four times, when it remained open permanently. No fæces had passed through the rectum. Before the operation a flexible tube could be easily pushed up into the bowel for the distance of two and a half feet, and through it injections were given, but without avail, although occasionally, when the tube was withdrawn, its extremity was smeared with fæcal matter. The only point at which there was anything that felt like a tumor was just within reach of the finger. The only diagnosis made was probable stricture high up in the colon.

DR. GARRIGUES referred to a case of intestinal obstruction occurring in a nun *æt.* 20 years. No passage from the bowels occurred between August 4th and August 18th. She had vomited everything that had been put into the stomach, but no fæcal matter. A variety of remedies were used without benefit. A tube was introduced as high as the junction of the descending with the transverse portion of the colon, and injections given several times. The last one given contained a teaspoonful of green soap, and all at once the patient felt as though something had given way, and was at once relieved. Two days afterward a large pultaceous evacuation from the bowels occurred. He had at one time contemplated laparotomy for the relief of volvulus, and the sudden getting well suggested that it may have existed. He asked whether any of the members had used quicksilver in cases of intestinal obstruction—a remedy which at one time was recommended and used in doses of a pound or two.

DR. POST remarked that he had a brother who had a scirrhus contraction of the rectum, and in his case quicksilver was used, and it passed through, but brought nothing with it. He lived twenty-nine days without a fæcal evacuation. At that time the present modes of relief were not usually practised, and he was allowed to die with complete obstruction of the bowels.

THE PRESIDENT alluded to cases of lead colic, in which quicksilver had been used in half-pound doses. In one case the quicksilver passed through without the passage of any fæcal matter, was collected by the patient, placed in a bottle, and carried about as a trophy.

DR. J. MARION SIMS then read a paper on

HYDROBROMIC ETHER—BROMIDE OF ETHYL—AS AN ANÆSTHETIC.

[See MEDICAL RECORD, p. 361.]

The paper being before the Academy, the discussion, on invitation by the President, was opened by DR. LEVIS, of Philadelphia, who made some general remarks which were contained in a paper upon the subject to be published in the MEDICAL RECORD. [See MEDICAL RECORD, p. 342.] The only explanation he could give with reference to the difference in results obtained by Dr. Sims and himself was, that there might be a difference in the method in which it was used. He thought that some of the errors were such as he made in his first cases in which he administered it, when he began very cautiously. He now knew that the proper method of administration was to make a rapid impression, such as was done in giving nitrous oxide gas. He had been able, nearly always, to produce complete anæsthesia, by the use of two drachms, in two or three minutes. He had produced anæsthesia in forty-five seconds; but if the patient could be made to inspire and expire freely, the average time was about three minutes. The only point in Dr. Sims's case which impressed him especially was the duration of the operation, and the large quantity of the anæsthetic used. In his own cases the operation had not lasted longer than forty minutes, and the entire quantity of the ethyl used was eleven drachms. He had not seen any after-effects whatever. As to nausea and vomiting, it perhaps was almost as likely to occur after the use of the ethyl as after the use of ether, if a considerable quantity was given. The quality of the article he regarded as very important, and he was sure that, since he had used Wyeth's preparation, there had been less tendency to nausea. With reference to the persistent odor in the breath, vomited matters, etc., he had noticed it when he had used the same preparation that Dr. Sims used.

THE PRESIDENT.—It will be noticed that the symptoms and phenomena manifested differ entirely from the symptoms and phenomena manifested after the administration of any other anæsthetic which has been used. I therefore take the privilege of calling upon Dr. Squibb, of Brooklyn, with the view of receiving an explanation of its failure to be eliminated from the system; that is, whether there are any constituents, either bad or good, in the ethyl, which of itself might destroy life.

DR. E. R. SQUIBB.—I fear, Mr. President, I have but little to add to the elucidation of this subject, and I must premise my remarks by saying that all I have to say upon the question is entirely theoretical. I confess to having had a prejudice against this agent from the earliest I knew anything of it, and it is upon theoretical principles, and upon those only, that I am capable of speaking or throwing out hints which possibly may be useful. As a chemical rule, I think that the anæsthetics which are the least dangerous are those which are the most simple, and when decomposed yield elements which, physiologically, are known to be most innocuous. If we commence with the nitrous oxide, we find that it is decomposable only into innocuous elements. If we go one step further and take the oxide of ethyl (and here I wish to protest against the bromide of ethyl being called an ethyl), it can be decomposed into comparatively innocuous elements. In the bromide of ethyl the oxygen of the ordinary ether is replaced by bromine, and the compound contains 73 per cent. of bromine, the other 27 per cent. being the ethyl. Now, when we compare the effects of all the known anæsthetics, we will find that those are more easily borne which are simplest in their nature; that is to say, the compound ethers are less safe than simple ethers, and both the compound and the simple ethers seem to be proportionately safe to the simplicity and innocuousness of the elements of which they are composed.

We all know that bromine is an irritant poison. We all know that bromide of ethyl is a loosely molecular article, is decomposed very easily, much more so than bromides of ordinary bases which act as salts and are eliminated as such. Now we will suppose that the bromide of ethyl, under certain circumstances, is decomposed, and its irritant property, the 73 per cent. of bromine, goes into the system; it is easy to understand that grave effects might be produced, and perhaps we shall be able in this way to account for the exceptional cases in which the anæsthetic has been used with unpleasant results, whereas, if it had remained as bromide of ethyl, it may not have been harmful.

Let us take an analogy found in chloroform, which contains 89 per cent. of chlorine. Chlorine is one of the organic bodies which does not possess the irritant properties that bromine does, and two atoms of chlorine are not so active in producing toxic effects as one atom of bromine found in the bromide of ethyl. The point can be illustrated still further by supposing the existence of an arsenite of ethyl, the activity of which in producing dangerous effects as compared with the bromide of ethyl would be represented by the difference between the activity of bromine and the activity of arsenic as irritant poisons. If it is admitted that such theoretical argument has any value, I think we could understand some of the dangerous effects produced when compound ethers are used as anæsthetics; and I think Richardson's observations point us toward the conclusion that compound ethers are less safe than simple ethers, and that simple ethers are less safe still than the oxides. This brings us down to the oxides and nitrogenous oxides of ethyl, which are the safest of all known anæsthetics.

There is another point; and that is, any agent that can be powerful and active for good, can be powerful and active for evil. We see that in chloroform, and we see it in the bromide of ethyl. I think we can logically argue something from the chemical composition of agents as to which will be useful to us, and especially in the application of agents which carry us so near the dividing-line between life and death.

DR. J. C. DALTON.—I should be very happy, Mr. President, to give to the Academy, in response to your invitation, any information, did I have it, with regard to this subject. But unfortunately I am worse off than Dr. Squibb, for I had never even seen any hydrobromic ether before this evening. There were some points in Dr. Sims's paper, however, which struck me forcibly, and one is the different kinds of danger which may be developed by different kinds of anæsthetics. I suppose that the profession are tolerably well convinced now that ether, when it is dangerous as an anæsthetic, is mainly so in consequence of the presence of some morbid change in some vital organ; that when the entire body is perfectly healthy, ether comes as near to being a perfectly safe anæsthetic as we can have. I do not know of any modification with regard to that statement.

In this case, reported by Dr. Sims, if the death

was due to the hydrobromic ether, it was a death which took place long after the substance was administered. It was a death apparently due to the persistent obstinate possession which the bromide of ethyl had taken of the entire system. The system could not get rid of the substance with which it was saturated, and which in some unexplained way produced those symptoms which have been so faithfully detailed. I do not wish to proffer any opinion regarding the cause of death in the case, but it seems that there was a repetition of peculiar symptoms in the midst of which the patient finally died, and that after death the entire system did retain, during a long period, the bromide of ethyl in sufficient quantity to indicate its active properties. How entirely different deaths from chloroform take place. They occur without any convulsions, without any marked symptoms, and odoriferous bodies of persons who have died under its influence have not been specially observed. I do not suppose, however, we have yet exhausted all the methods by which various anæsthetics are dangerous or may prove fatal. But the difference between the manner in which death is produced by chloroform and by ether when given to animals has, in my experience, been very striking; so much so that I long ago abandoned the habitual use of chloroform while experimenting, because it was so annoying to lose an animal just before the experiment was required and could not be postponed. Not long since, in order to avoid the disturbance produced by ether, I chloroformed a cat for the purpose of making an ophthalmoscopic examination. With all the recollection of frequent previous disappointment fresh in mind, I was extraordinarily careful in giving the anæsthetic, both with reference to quantity and time occupied in its administration and all the circumstances that could effect the result, and yet, just as I wished to use the instrument, the animal was dead. Here, however, we seem to have another mode of death, and one which, if real, is perhaps as difficult to avoid as sudden death in the use of chloroform. I am unable to see how any greater care could have been used than was exercised by Dr. Sims, although it is possible that Dr. Levis, who has a much greater experience in the use of the agent, might point out some improvement in the method adopted.

Dr. A. C. Post remarked, with reference to the prolonged action of anæsthetic agents, that he had been in the habit, for several years, in cases in which he anticipated a long operation, to use Prof. Nussbaum's method, premising the use of the anæsthetic by the hypodermic injection of seven or eight minims of Magendie's solution of morphia. He had found by so doing that the anæsthetic effect could be kept up for a long time with more quietude and less quantity of the anæsthetic than where the morphia had not been thus administered, and he was inclined to think it added to the safety of the patient as well as to the comfort of the surgeon.

Dr. Jas. L. Little referred to two cases, as follows: Case I.—Last Tuesday, having received a specimen of the bromide of ethyl from Wyeth of Philadelphia, he determined to test its anæsthetic properties, and accordingly gave it to a boy three or four years old, upon whom he proposed to perform Heaton's operation for the radical cure of hernia. The ethyl was administered in the manner proposed by Dr. Levis; probably less than *two* drachms were used, and the patient went under its influence in less than two minutes. The pupils were contracted. Within five minutes after the cloth was removed from his face the child was able to respond intelligently. There was no vomiting.

Case II.—An adult, in good general condition, had two or three drachms held close over his mouth and nose on a napkin, and at the end of three minutes no special effect had been produced by the anæsthetic except to excite powerful struggling on the part of the patient. The ethyl was applied more freely, the patient struggled very violently, the face was suffused, not however like that seen in other inhalation: the pupils dilated and contracted alternately, the eyeballs rolled about; and at the end of *eight* minutes Dr. Little became somewhat alarmed at the condition of the man and discontinued the ethyl. The patient sneezed, within three or four minutes, to come from under what influence of the anæsthetic he had received. The quantity used was *two ounces* and *two drachms* by weight, and the time occupied *eight* minutes. There was neither nausea nor vomiting. Both the pulse and the respiration became exceedingly rapid. The condition was entirely different from anything he had ever seen in connection with the inhalation of either chloroform or ether. Ether was subsequently administered, and the operation performed.

The President.—It will be noticed that Dr. Sims reported in his case that the respiration became exceedingly rapid. In the administration of this anæsthetic it seems, from what has been said, that it is necessary to produce its anæsthetic effect as rapidly as possible; that no atmospheric air is admitted, or just as little as possible. Of course, associated with this is another influence. We know that the exhalation of carbonic acid gas is limited, and, therefore, the question naturally arises: May not that fact be one which contributes to the danger, may not a part of the poisoning be due to the carbonic acid gas? I will next call upon Dr. Wylie, who has had experience with Dr. Sims in the administration of this agent.

Dr. Wylie remarked that he had nothing to add to the details of the case which Dr. Sims had reported, except that he endeavored to follow Dr. Levis's directions regarding the mode of administration, in the most exact manner. In three cases in which he had administered it he had seen the muscles in general convulsed. He was satisfied that hydrobromic ether could not be used as an anæsthetic with the same freedom as could ether. He had not had any difficulty in administering either chloroform or ether, having used both many hundreds of times, yet it was just possible that he failed to give a sufficiently large quantity of the ethyl just at the beginning. He could see no other explanation for his failures in attempting to produce safe anæsthesia with the new agent.

Dr. Sequin made special reference to two points: 1. In the many substances employed, the anæsthesia is separate from other effects produced by the agent. Therefore, it is necessary to be cautious in regarding the disappearance of the anæsthesia as the disappearance of the entire effects of the agent; that is to say, the disappearance of the anæsthesia suddenly after the administration of the agent has ceased does not indicate that the effect produced by the anæsthetic has passed away. 2. Many of the symptoms in Dr. Sims's case looked very much like those belonging to bromine poisoning. If it was a case of poisoning by bromine, that fact was to be separated from the known character of the agent as an anæsthetic. A better illustration of the effects of an irritant poison, he thought, could hardly be found, not

only upon the alimentary canal, but also upon the kidneys. The idea that the organic condition of the kidneys, discovered only by the microscope—and that after they had once been thought to have been healthy—was a condition that had anything to do with producing the death of the patient, did not look probable in view of the presence of other well-marked irritant symptoms. He would say, therefore, that he should abstract the anæsthetic element altogether from the case, and study it as a simple case of irritant poisoning. The color of the eyes, and their peculiar movements, and the intense pain in the head, together with the other symptoms, pointed directly to the irritant effect of some such agent.

Dr. Roberts, of Philadelphia, on invitation, remarked that he had administered the bromide of ethyl many times as an anæsthetic, both for Dr. Levis and in his own practice, yet he had nothing special to add to what had already been said. He had had no experience whatever in the use of chloroform, and therefore was unable to compare the bromide of ethyl with that agent. His own experience with ether had been that it was a safe anæsthetic, sometimes, however, requiring large quantities to produce the desired effect. The most troublesome symptom he had observed with ether was the expectoration of large quantities of mucus and the existence of coarse bronchial râles, due to hypersecretion into the bronchial tubes. He always felt specially disturbed with reference to the respiration of a patient inhaling ether. One of the chief benefits arising from substituting the bromide of ethyl for ether was, that the ethyl affected the respiration but little, except to a certain extent, to increase its frequency. In no case had he seen hypersecretion of mucus, such as was so annoying in etherization, when bromide of ethyl was used As a rule, the pupils had been dilated during the period of the most profound anæsthesia. It was a little difficult to judge of the pulse. The eyes were not so suffused as in etherization. As a rule, patients had come from under its influence promptly. In two cases he had observed nausea. He was not at all an advocate for the agent, but simply felt interested in assisting to place it upon record as an anæsthetic that had been used successfully. He thought it possible that in Dr. Sims's case sufficient stress had not been laid upon the operation itself as a factor in producing the death of the patient, as some deaths had followed the abdominal incision for removal of the ovaries, or Battey's operation. With reference to the tetanic convulsions, he thought they were not infrequently seen in connection with the use of ether. He also called to mind a case in which the patient had severe convulsions occurring with etherization, and it was subsequently found that the patient was an epileptic. It was possible that some such influence might have been at work in Dr. Sims's case. He thought that it might be difficult to use the ethyl in plastic operations about the face, because its effects were so evanescent.

The Academy then adjourned.

Roosevelt Hospital.—Eighth Annual Report, 1879:—The total number of cases treated in this hospital last year was 1,617. The mortality was 8¼ per cent. The number of operations was 156, of which 92 were successful and 38 attended with improvement. The operations included a lumbar colotomy, a litholapaxy, and two median lithotomies.

THE MEDICO-LEGAL SOCIETY.

Stated Meeting, March 3, 1880.

Dr. C. S. Wood, President, in the Chair.

THE PROBLEMS OF INSANITY.

Dr. George M. Beard read a paper on the above subject, in which he considered first, the causes of insanity, and of its increasing prevalence in modern times; second, difficulties in the diagnosis; third, the probabilities of cure; fourth, defects of the present system of treatment in Europe and America; and fifth, the future of insanity and influences that may check the rate of increase. The following is a brief abstract: The speaker said that it was one of the paradoxes of astronomy that the constitution of the sun was best studied when that orb was in an eclipse. It was one of the paradoxes of psychology that the mind was best studied when it was eclipsed by disease. Through insanity we learned of sanity. Pathology was the aid of psychology. Dr. Beard thought that psychology was destined to be the chief of the sciences, and that its study was greatly aided by the study of insanity. The first problem of insanity was how to define it. Insanity was a disease of the brain, in which mental co-ordination was seriously impaired. There might be disease of the brain without mental inco-ordination, but in all cases of insanity disease of the brain was implied. The word mind was used in a broad and generous sense. There was no mathematical dividing-line between sanity and insanity. Sanity shades into insanity like twilight into night, and the different forms and subdivisions shade into each other like the colors of the rainbow. There were two general divisions of insanity—intellectual and emotional. Delusions were not necessary to insanity. In very many cases there were no delusions, simply emotional disturbances. The ideas implied by the terms moral insanity and impulsive insanity were correct and sound. In some cases patients afflicted with what was called moral insanity, developed into forms of insanity in which there were delusions. Insanity with delusions and insanity without delusions ran together constantly, and were intermingled in different cases. The term moral insanity might be an unfortunate one, but the idea was scientific and demonstrable.

A second problem was, why was insanity increasing in frequency? Insanity was a barometer of modern civilization. Though existing in all recorded ages, and among all peoples, and known under various and inconsistent names and superstitions, yet it was rare and had always been rare with the savage, the barbarian, and the partly enlightened. There was no race, no climate, no institution, no environment that could make insanity common save when united with and reinforced by brain work and indoor life. Besides those general differences there were features of the modern and pre-eminently of the nineteenth century civilization that were peculiar to it—unprecedented in history—the printing press, the telegraph, steam power, the sciences and the mental activity of woman. Bringing arithmetic to aid us in our comparative estimate, it seemed quite within the facts to aver that the modern brain must carry and endure tenfold more than the ancient, and without a correlated increase of carrying and bearing force. Insanity was increasing more among the poorer than the higher classes. Civilization ground hardest on the poor, depriving them of the healthful influences of barbarism without the compensating

advantages that the higher classes enjoyed. Dr. Beard stated that he had reached that conclusion from years of study of the special subject. A number of years before, while studying the subject of stimulants and narcotics, together with the drinking customs of different nations, he had occasion to study very thoroughly the customs of different nations so far as could be obtained from accessible sources, works of travel and conversations with travellers, and, making due allowance for sources of error, there was an entire agreement with regard to the variety of allied nervous diseases among savages and barbarians. Quite recently he had studied the subject himself among thousands of negroes upon the island of Beaufort, between Savannah and Charleston. These negroes had been for years isolated, had not advanced a great deal beyond their original ancestors in Africa, and furnished an excellent opportunity for him to study the subject himself. He had investigated the psychology of these people carefully, by the aid of persons who, for years, had lived among them and employed them, and diseases such as neurasthenia, hay fever, symptoms of spinal irritation, and insomnia, to any extent were not known. They drank to excess, but there was no inebriety.

Poverty made us insane, and insanity made us poor. In England the increase of insanity among the poor during the last forty years had been 300 per cent., while the population increased in the same time only 45 per cent. But statistics relating to insanity were crammed with elements of terror.

The main defects in this present treatment of the insane in Europe and America were these: First, neglect of the early stages. The insane should be treated before they were insane. The practical problem of the future was to educate physicians in the study of insanity so that they should know premonitory symptoms and treat the patients in many instances without taking them to an asylum. The time would come when physicians would treat insanity just as much as they treated typhoid fever; would be able to diagnosticate it in the early stages; would be able to cure it; and, what was still better, would be able to prevent it by treating the conditions which lead to it. In a number of cases under his own observation he had thought of referring the patients to an asylum, but satisfactory results had been obtained by treatment at home. Each case in that respect must be judged by itself. A number of his medical friends, general practitioners, he knew were treating certain forms of insanity very successfully in that way.

The solution of that problem was already going on. Patients in the early and premonitory symptoms were constantly and successfully treated both by neurologists and general practitioners. Even those who were positively insane were treated successfully in that way at home. Second, the error was in depending on simple isolation in asylums without positive medication. The same mistake had been made in inebriate asylums, but was being corrected in them. The third evil was in the use of narcotics and sleep-forcing agents. The fourth error was the crowding together of curable and incurable cases. Three-fourths of the cases in asylums were cured in the first nine months. It was one of the facts of human progress that reforms usually came from outside of institutions that needed to be reformed. Long ago, John Bright, in the House of Commons, declared that all the reforms of English law in favor of justice and mercy had been opposed by the judges.

The diminished proportion of cures for the insane in asylums in recent years was explained partly by this, that hereditary influences were every year growing stronger. Hereditary disease of all kinds was harder to cure and more likely to relapse than any accidental or primary nervous disease. The future of insanity was a part of the future of sociology. Hundreds of millions of people were to occupy this continent, and among them were to be hundreds of thousands of lunatics. The late president of the British Psychological Association predicted that if insanity was to increase in England and Wales as it had increased during the last forty years, there would be 1,250,000 lunatics upon that island in the year 1912.

But the relative increase of insanity might probably be checked somewhat in all civilized countries. First, by inventions which diminished the fractions of modern life. Types of those inventions were the telephone, the type writer, palace cars, and elevated railways in great cities. The inventions of thirty or forty years ago, the telegraph and the like, all tended to increase the friction of life. Second, by the development of the intellect at the expense of the emotions. Insanity was caused not so much by intellectual as emotional activity. Third, improved system of education, primary and university. The whole system of mental training for the young must be and would be revolutionized. Fourth, the successful treatment of the nervous diseases and conditions that lead to insanity as nervous exhaustion, cerebral congestions, hysteria, hypochondria, and the like. In that respect great progress was being and had been made. There was also going on improvement in mental hygiene. The better classes of the American people were today growing stronger and larger, and now presented some of the best specimens of physique in the world. The criticisms on the defects of the treatment of the insane applied to all countries more or less, but England had the great advantage of supervision of all asylums, public and private, by a central authority, composed partly of physicians, partly of lawyers, and partly of business men. For forty years that commission had been in operation in England, and had given satisfaction. A bill to increase the number and enlarge the powers of the New York State Board of Charities, so that it might fulfil the duties assigned to the English Lunacy Commission was before the Legislature. It ought to be introduced not only in this State, but in other States. It would not solve all the problems of lunacy, but it would be one step in the direction of the solution of some of them. Lunacy reform would not be accomplished by leaps or jumps, but by slow increments.

During the discussion that followed the reading of the paper, there was considerable dissent expressed from some of the views contained in it, and it was voted to call a special meeting for the thorough discussion of the entire subject.

A QUERY.—Dr. J. J. Boynton, of Stowe, Vt., writes to us concerning the nitrite of amyl in chloroform narcosis, of which an account is given by Dr. John Burke in the MEDICAL RECORD of February 21st. He asks the doctor to tell us how the nitrite of amyl could restore a patient who was "apparently dead, pulse gone, heart ceased, face blanched, no breathing, mouth shut." Our correspondent does not see how any drug can have much effect after heart and lungs have stopped action.

Correspondence.

THE TREATMENT OF DIPHTHERIA.

To the Editor of The Medical Record.

Dear Sir:—On looking over the report of the discussion which followed the reading of my paper in the Academy of Medicine, and the editorial comments thereon in your issue of to-day, I find two points to which it seems necessary that I reply, if I may be kindly permitted to occupy for the purpose yet a little more of your valuable space.

The first point is the objection made by Dr. Jacobi to the use of lime-water spray, as practised and recommended by me in the treatment of diphtheria.

Dr. Jacobi's objection is, that the very small amount of lime in the lime-water spray must be changed by the action of the carbonic acid in the breath on its way to the throat, so that "when it does go there it is no longer lime-water," but carbonate of lime and consequently "inert."

As I know that Dr. Jacobi agrees with me that in combating this disease even slight aids are not to be despised, I wish to submit to him the following considerations, in the hope of obtaining from him a modification of his verdict against a therapeutical measure which, as I fully believe, has rendered me very valuable service.

There are two questions of fact raised by this objection—a chemical one and a therapeutical one. The chemical one is, does the lime under these circumstances change into the carbonate with such rapidity as Dr. Jacobi supposes? It occurred to me that the question might be answered by a very simple experiment. I was permitted by a patient who has an unusually patent and tolerant throat, to hold a bit of red litmus-paper at the end of a wire, and protected from the action of the saliva by coils of wire, well back in the pharynx—the patient being instructed to breathe naturally. I then, with the atomizer which I use in treating diphtheria, and in exactly the same manner, threw the spray of lime-water into the throat. In fifteen seconds the red litmus-paper was turned blue—this change occurring quite as rapidly and as completely as when the same experiment is performed in the outer atmosphere. In other words, it was not appreciably modified by the breath. Again, litmus-paper moistened with lime-water can be held in the breath for some minutes before its blueness is perceptibly affected by it.

This experiment seems to me to show that lime-water spray reaches the fauces and pharynx as lime-water, and does not immediately thereafter cease to be lime-water. When spray thrown into the throat by this method enters the larynx it does so by being drawn in thither by the *inspired* breath which is comparatively free from carbonic acid, and it therefore reaches the walls of the larynx as lime-water, and there continues to be lime-water for a certain length of time.

It should be remembered that my method of using this agent in ordinary cases of diphtheria is to require it to be thrown into the throat for some minutes every half-hour, and in laryngeal cases as nearly constantly as is practicable—never employing it at all except in patients who are old enough to favor its free entrance by holding the mouth widely open. Is it therefore unreasonable in me to suppose that the affected surfaces are actually bathed in lime-water for a sufficient portion of the time for some positive effect to be produced?

Now as to the therapeutical question. That any portion of the benefit which has seemed to me to attend the use of this agent has been due to its solvent or softening action upon diphtheritic membrane I am not prepared to assert, though experience such as I have previously published (see Transactions of N. Y. Academy of Medicine for 1876, pp. 309 and 310) favors such a conclusion. But there are other indisputable therapeutical properties of lime-water spray (with the addition, as I employ it, of a minute proportion of carbolic acid) which are desirable in the treatment of diphtheria. It is cooling, sedative, antiseptic, and mildly astringent. It is therefore adapted to assist in subduing inflammation, which is a most important part of the indication in the treatment of diphtheria. I have accordingly found it useful not only in this disease, but also in catarrhal pharyngitis and laryngitis, and I was glad to learn from the remarks of Dr. J. H. Douglas that his experience had been decidedly in accord with my own.

The other point to which I must refer is, that it is evident from your own comments, as well as from those of Dr. Jacobi, that my meaning was misapprehended in the remark that "such membrane is probably a desirable protection," etc. (*vide* p. 341). The misapprehension is probably the result of the conciseness which I was obliged to employ in order to bring the length of my paper within tolerable limits. By reference to the context of this remark, however, it will be seen that it refers to "deep and firmly adherent membrane." It will be seen also that I stated that the "*under* surface"—not the "superficial parts"—of the membrane is the source of septic poisoning. I thought it fair, also, to presume that in using the term "desirable protection," I would be understood as meaning not absolutely but relatively desirable, or *as an alternative*. Most *un*desirable and dangerous as this protection is then, in an absolute sense, let us consider the alternative. By the sudden removal of such membrane, a raw surface is left without epithelial or other protection, in a state of inflammation, exposed to both mechanical and chemical irritation, and, as experience has shown, particularly liable to become the site of renewed diphtheritic disease. In many instances, it becomes at once more inflamed than before, and its membranous covering is not only speedily reproduced, but extended—the "last state" of that throat being "worse than the first." I have observed such results follow the premature detachment of membrane by the coughing or retching of the patient, and, with fatal effect, its disturbance by rude manipulation, or its destruction by chemical agents. The successful treatment of diphtheria, as of other diseases, must often consist in the wisest choice of evils—the lesser one being "desirable" in comparison with a greater.

I have made this explanation merely to rescue my meaning from fatal misapprehension, as it is evident that you, Mr. Editor, and Dr. Jacobi, in common, as I believe, with most judicious practitioners at the present day, are in accord with me on the very important point of deprecating any premature or irritating interference with diphtheritic membranes; and no one, on the other hand, can in any case be more anxious than I "to get rid of them as soon as possible," consistently with safety.

Very truly yours,

C. E. Billington, M.D.

110 Madison Avenue, New York,
March 27, 1880.

DOCTOR VERSUS DRUGGIST.

To the Editor of The Medical Record.

SIR:—Allow me to suggest a plan which will remedy the evil from which particularly the younger members of the profession suffer. I refer to counter-prescribing, high rates for prescriptions, renewing prescriptions without order from the physician, and other sins of which the great majority of druggists are guilty. Let every eight to ten physicians practising in a given area, associate, subscribe from thirty to forty dollars each, rent a small store centrally located, suitable for a laboratory, purchase a supply of drugs from the manufacturers, and engage the services of a competent chemist or prescription clerk, the whole matter to be under the supervision of a committee appointed for this purpose. All prescriptions are to be put up at this laboratory at cost, with enough margin to cover the running expenses, and a careful calculation has shown that all ordinary prescriptions for which druggists charge seventy-five cents to one dollar can readily be compounded at from fifteen to twenty-five cents. No articles for sale to be kept in the laboratory, and only the prescriptions of those who are stockholders to be put up at cost. The advantages of such a system are obvious, and could not fail to be popular. It would, above all, do away with the pernicious system of counter-prescribing which exists only by reason of the inability of many to pay both doctor and druggist, the latter generally charging more than the former. To the same reason is undoubtedly due the success of so-called homœopaths who furnish medicines gratis. I would therefore urgently recommend the adoption of the remedy proposed, which has met with the approval of all to whom it has been suggested, and will shortly be put in practical operation in several cities.

E. J. D.

PORTLAND, ME.

"ARTERIAL ANOMALIES."

To the Editor of The Medical Record.

SIR:—During the session of 1875–76 at Miami Medical College, Cincinnati, Ohio, the remarkable manner in which the brachial artery was given off in the subject I was dissecting led me to ask some of my fellow-students if they also had been treated to one of nature's freaks, when to my surprise, in some thirteen subjects examined, in five the brachial artery was unusual in its arrangement, and in one case the popliteal was abnormal.

CASE I.—*On the right side.* The brachial artery at the inferior border of the pectoralis major, divided into two branches, the *inner* branch giving off the superior profunda and anastomotica magna, and the *outer* branch the inferior profunda and musculo-cutaneous branches. The two branches reunited at the bicipital fascia and formed one distinct branch for about one and a fourth inches, and then divided into the radial and ulnar arteries. Both of these branches were of equal magnitude, and the diameter of either branch being as great as the normal brachial artery. The relations of these branches were the same as the normal brachial except that the median nerve was in relation to the *inner* branch by its outer side, and to the outer branch by its *inner* side. *On the left side*, the brachial artery was normal.

CASE II.—The radial and ulnar artery *on the right side* arose from the axillary about five-eighths of an inch external to the acromial thoracic, beneath the pectoralis minor. The ulnar artery giving off the long thoracic, subscapular, posterior circumflex, superior profunda, and anastomotica magna, and the radial artery giving off the inferior profunda and musculo-cutaneous branches these arteries did not reunite, but passed down the arm and were distributed in the forearm in the usual manner. *On the left side* the radial and ulnar arteries commenced at the lower margin of the tendon of the teres major. The superior profunda and anastomotica magna were given off from the ulnar, and the inferior profunda and musculo-cutaneous branches from the radial arteries. They did not reunite again, but were distributed in the forearm in the usual manner.

In Cases III., IV., and V. the radial and ulnar arteries were given off from the axillary at the lower margin of the teres major *on both sides*, and passed down as two distinct arteries, not reuniting; but in the arm the superior profunda and anastomotica magna were given off from the ulnar artery, and the inferior profunda and musculo-cutaneous arteries from the radial artery in the forearm; the radial and ulnar were normal.

CASE VI. The popliteal artery divided *on the right side* into three branches—the posterior tibial, anterior tibial, and peroneal arteries. *On the left side*, the popliteal artery also divided into three branches—anterior, posterior tibial, and peroneal arteries.

It will be observed that in Case II. the radial and ulnar arteries arose from the axillary artery on the right side, most unusually high, there being scarcely any axillary artery on that side. In Cases III., IV., V., and VI. the anomaly was symmetrical on both sides.

Cases I. and II. are especially of rare occurrence, and I thought it might be of some interest to note them.

M. H. DEAN, M.D.

WAMPUM, PA., March 10, 1880.

THE TREATMENT OF FRACTURE OF THE PATELLA BY THE WIRE SUTURE.

To the Editor of The Medical Record.

DEAR SIR:—In the number of your journal for March 6, 1880, page 274, under the heading "Treatment of Transverse Fracture of the Patella with the Wire Suture," appears: "Dr. J. E. Van der Meulin, of the University of Utrecht, reports to the *Lancet* the first case of transverse fracture of the patella ever treated with the wire suture. It was one that came under his care July, 1878." Now it has been my impression, received from good authority, that this same operation was done successfully many years ago by Dr. George McClellan, in Philadelphia, and I published an account of it in a paper contributed to the May (1876) number of the *New York Medical Journal*, "On the Wire Ligature in the Treatment of Ununited Fractures, and in Resection of Bones for Deformity." On page 463 is: "As to the kind of wire to be used, surgeons differ. Some use silver or silver-plated copper, but I have a preference for iron wire, imbibed perhaps from the teachings of the late Prof. Joseph N. McDowell, of the Missouri Medical College. I first heard him mention it in connection with fractures of the patella, in a lecture to his class during the 1866–67 session. He spoke about thus: 'Gentlemen: Between twenty-five and thirty years ago, while passing along the streets of Philadelphia, the late Dr. George McClellan, an illustrious surgeon

of that city, called me to his buggy and requested me to accompany him, to assist in an experiment he said he was going to perform upon a fractured patella. When we arrived at the bedside of his patient, he cut down upon the fracture with a longitudinal incision, and bored holes slantingly from about half an inch in each fragment from the edge of the fracture to the centre of the fractured surfaces, and passed through these holes a soft-iron wire, and tied the fragments nicely in apposition. Dr. McClellan's experiment was a success. The patient got well with the only bony union I believe I ever saw of a fractured patella. Dr. McClellan used the best metallic substance for a ligature that, in my opinion, has yet been found. But, gentlemen, my advice to you is, don't try the same experiment.'"

I have noticed this operation credited to Mr. Lister and other European surgeons by various home journals, among them the *Medical News and Library*, to the editor of which I wrote concerning it; but he did not see fit to give the credit at home where it belongs.

Very truly yours

WILLIAM A. BYRD.

407 JERSEY STREET, QUINCY, ILL.

THE ABUSE OF MEDICAL CHARITIES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The letter of Dr. F. R. Sturgis, in your issue of March 27th, seems to demand an explanation on my part.

As regards my tardiness in publishing the cases referred to in my previous communication, I long ago learned the inutility of individual efforts to reform abuses which are tolerated by general apathy; and that such apathy exists throughout the medical profession is too evident to require argument. I have seldom, if ever, met with a brother practitioner who did not know of instances of interference as glaring as those which I described, occurring either to his own detriment or to that of his friends; but, as a rule, the private sense of grievance appears to be overmastered by a traditional reverence for the distinguished consultants whose quasi public position raises them above the code of ethics which is designed to keep the rank and file of the profession in order. The private practitioner is expected—and properly so—to be cautious in the case of a new applicant for advice, lest he entertain unaware the patient of another physician; is a similar precaution always exercised—even outside of hospital or college clinic—by all consulting surgeons and specialists? or are professional felonies sometimes compounded with "no questions asked"? Let me not be misunderstood as generalizing in such a query. Many whom I am proud to rank among my friends merit their eminence not less by their scrupulous sense of honor than by their professional attainments; to intimate that there are exceptions, is only to admit that in all pursuits there are men who will make base use of their opportunities for self-aggrandizement.

Touching the publication of names and places, it is to be observed that the cases to which I adverted were seen by me in consultation, and that, even were I inclined to assume the championship of other people's quarrels, I had no right to publish personal details without the consent of the persons who were directly aggrieved. Moreover, as the worst features of the matter rest upon the statements of the patients, it would be manifestly unjust to make specific charges in print without full investigation and verification of the evidence. The abstract existence of such abuses is fit subject for public discussion; but I think that individual examples would be better dealt with by our corporate medical societies, which are the proper tribunals to weigh the testimony and apportion the blame.

Finally, in answer to Dr. Sturgis's comment upon a paragraph in my former communication, whilst I fully agree with him as to the right—nay, the duty—of the hospital or clinic physician to refuse "to give his time or services *gratis* to such as can pay him a fee," he seems to have overlooked the pivotal clause of my criticism—viz., the "ascertaining whether the case were already under treatment or not." This being considered, I am sure that Dr. Sturgis will concur with me in maintaining that if a patient be already under the care of a private practitioner, neither officiating professor nor any member of a clinical staff should divert such patient's fees from his regular medical attendant; in other words, that the same courtesy should rule in "out department" and clinic which is supposed to obtain in ordinary professional intercourse.

I am, sir, faithfully yours,

ALFRED L. CARROLL.

NEW BRIGHTON, March 28, 1880.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 21 to March 27, 1880.

PERIN, G., Lieut.-Colonel and Surgeon. Upon being relieved by Surgeon Magruder, to report in person to Comdg.-General, Dept. of Dakota, for duty as Medical Director of that Dept. S. O. 63, A. G. O., March 22, 1880.

MAGRUDER, D. L., Major and Surgeon. Relieved from duty in St. Louis, Mo., and to report in person to Comdg.-General, Dept. of the Missouri, for duty as Medical Director of that Dept., relieving Surgeon Glover Perin. S. O. 63. C. S., A. G. O.

BYRNE, C. C., Major and Surgeon. In addition to his duties as Post Surgeon, Fort Snelling, Minn., to take charge, temporarily, of the Medical Director's office at these Headquarters. S. O. 30, Dept. of Dakota, March 20, 1880.

GIRARD, J. B., Capt. and Asst.-Surgeon, Fort Davis, Texas. Granted leave of absence for twenty-five days, with permission to go beyond the limits of the Dept. S. O. 55, Dept. of Texas, March 16, 1880.

MCCREERY, GEO., 1st Lieut. and Asst.-Surgeon (recently appointed), now at Fort Columbus, N. Y. H. To report in person to Comdg. Officer, Dept. of Arizona, for assignment to duty. S. O. 63, C. S., A. G. O.

SCHUÉ, E. D., 1st Lieut. and Asst.-Surgeon (recently appointed), now at David's Isld., N. Y. H. To report in person to Comdg. Officer, Dept. of Arizona, for assignment to duty. S. O. 63, C. S., A. G. O.

NEWTON, R. C., 1st Lieut. and Asst.-Surgeon (recently appointed), now at Fort Stanton, N. Mex. To report by letter to Comdg.-General Dept. of the Missouri for assignment to duty. S. O. 63, C. S., A. G. O.

COCHRAN, J. J., 1st Lieut. and Asst.-Surgeon (recently appointed), now at Ft. Wingate, N. Mex. To report by letter to Comdg.-General, Dept. of the Missouri, for assignment to duty. S. O. 63, C. S., A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 27, 1880.

Week Ending	Typhus Fever	Typhoid Fever	Scarlet Fever	Cerebro-Spinal Meningitis	Measles	Diphtheria	Small-pox	Yellow Fever
March 20, 1880	0	5	28	6	93	38	0	0
March, 27 1880	0	11	48	6	70	45	0	0

HEALTH OFFICER FOR THE PORT OF NEW YORK.—Dr. William M. Smith, of Angelica, Allegany County, has been nominated and confirmed as Health Officer of the Port of New York, in place of Dr. S. Oakley Vanderpoel. Dr. Smith is a member of the Allegany County Medical Society, has represented his county in the Assembly twice, and was a surgeon of volunteers during the war.

NEW YORK DISPENSARY.—The name of the newly appointed House-Physician of the New York Dispensary is Dr. W. A. Valentine, instead of Dr. W. E. Valentine, as previously stated.

THE COLUMBIA VETERINARY COLLEGE.—The Commencement exercises of this college were held in Chickering Hall on the 26th of March, when the degree of Doctor of Veterinary Science was conferred upon seven members of the Senior Class, and certificates were granted to eight members of the Junior Class. The degrees were conferred by Dr. Alexander Hadden, President of the Board of Trustees. The following prizes were awarded, on behalf of the Faculty, by Prof. Thomas H. Hawkins: The gold medal for the best general examination, to John Lindsay, of Long Island; the silver medal for general excellence in the junior examination, to M. L. Frey, of New York; the anatomical prize to N. F. Thompson, of New York; the Hadden prize for the best general showing, to J. A. McLaughlin, of New York; the medical jurisprudence prize to John Lindsay; the prize for the best report of operations in the college, to N. F. Thompson, who also delivered the valedictory. Addresses were delivered by Fordyce Barker, M.D., LL.D., and Hon. George B. Loring, of Massachusetts. The stage was tastefully decorated with flowers. The music was under the leadership of L. N. Soltan.

INFLUENCE OF PILOCARPINE ON BALDNESS.—The following occurs in the *Moniteur Scientifique* for February, 1880.—"Dr. G. Schmitz has twice noticed the reproduction of hair on the head of bald patients, whom he had treated with hypodermic injections of pilocarpine for eye diseases (*Berl. klin. Wochensch.*). On an old man, aged sixty, who had been operated on for double cataract, he made three injections in the space of fourteen days; the membrane over the pupil disappeared, as he had expected, but at the same time the head of this man, who was completely bald, became covered with a thick down, and afterward his hair grew and became thicker, so that at the end of four months there was no trace of baldness left, and the patient became the possessor of an abundant crop of hair partly white and partly black. In the case of another patient, thirty-four years old, suffering from detachment of the retina, the top of the head was entirely without hair on a surface as large as a playing card. In this case also two injections of the same kind not only in curing the eye disease, but also in the reproduction of hair.

MEDICAL STUDENTS IN BERLIN.—At the University of Berlin, 475 students of medicine attended this year's winter course of lectures and clinics.

DUTY ON QUININE.—Mr. Kelley, Representative from Pennsylvania, introduced a bill, March 22d, to impose a duty of 10 per cent. on quinine.

NIGHT MEDICAL SERVICE IN CITIES.—Dr. Henri Sachtel has recently been in Philadelphia and has explained his plan for a night medical service to the Philadelphia County Medical Society. A committee of nine, with Dr. Benjamin Lee as chairman, was appointed to consider the subject.

COLLEGE OF PHYSICIANS AND SURGEONS.—Dr. Geo. H. Fox has been appointed lecturer on diseases of the skin, vice Prof. W. H. Draper, resigned.

ILLINOIS STATE MEDICAL SOCIETY.—The next annual meeting of this society will be held at Bellville, Tuesday, May 18, 1880.

THE COMMON-LAW RIGHTS OF AUTHORS AND LECTURERS.—A suit is now pending in the New York Supreme Court which, in view of a recent decision, is of considerable interest to lecturers either in the class-room or on the public stage. Drs. Darling and Ranney, who are both anatomical lecturers in the University Medical College, have written a book called "Essentials of Anatomy." By the usual publishing contract they conveyed to Messrs. G. P. Putnam's Sons the exclusive right to publish this book. Dr. Leo T. Meyer undertook to publish a book containing substantially the same matter, which matter he claims to have obtained from Dr. Darling's lectures while Meyer was a student under him. A preliminary injunction against the publication of Meyer's book was granted by Mr. Justice Lawrence. A motion has just been argued to make this injunction permanent, and Mr. Justice Donohue has denied this motion upon two grounds: First, because it appears by Dr. Darling's own affidavit that he had given Dr. Meyer permission to print some portions of his lectures before he made the publishing contract with Messrs. G. P. Putnam's Sons; second, because Dr. Darling's lectures became public property by his delivery of them in his class-room, and that, therefore, any one was at liberty to publish them. This proposition of law, if not entirely new, is of a nature to interest if not to alarm instructors and lecturers, not to say dramatic authors. An appeal has been taken by the plaintiffs, Messrs. G. P. Putnam's Sons, from this order, with the belief that the papers do not sustain the proposition of fact on which this decision is based, and that the General Term will not sustain the proposition of law on which it is also based. Messrs. Alexander & Green, and William C. Gulliver appear for plaintiffs, and Messrs. Curtis and Neville for the defendant, Meyer. Dr. Darling conducts his own case.

NORTHERN DISPENSARY—EIGHTEENTH ANNUAL REPORT, 1879.—The total number of patients treated during the past year is 24,239, being an increase of 907 on the previous year. Of these, 11,445 paid ten cents for their tickets, thus turning $1,144.50 into

the treasury. The annual expenses of the dispensary are about $4,500, and its financial condition is at present very satisfactory.

Medical Examiners.—A bill has been favorably reported to the State Senate creating the office of medical examiner.

New York Charitable Institutions.—On March 26th, Mr. Grosse introduced a bill into the State Assembly providing that after July 11, 1880, no charitable institution in New York shall receive from any fund, or moneys raised by direct taxation, a greater sum than $1.50 per week for each of its inmates for whom it is now by law entitled to receive money.

Abolition of Private Lunatic Asylums.—There has been for some time in England a cry for the abolition of private lunatic asylums. Dr. Bucknill has been one of the leaders in the movement, and he asserts that their superintendents are, as a rule, medically incompetent and only anxious to make money. Their venality also renders them liable to receive and retain persons not really insane, and abuses of this kind have been pointed out.

These charges have been denied by the supporters of the private asylums, and it may be gathered from the controversy that the truth lies half-way between the combatants. A bill has been introduced into Parliament which puts these asylums under local civil jurisdiction. But the bill is unsatisfactory, and will probably not be passed.

A Fund for the Discoverer of Anæsthesia.—The Hon. Alex. H. Stephens is said, by the editor of the *Virginia Medical Monthly*, to have prepared a bill asking an appropriation by Congress for the discoverer of anæsthesia. Three years ago Dr. J. Marion Sims proposed that the medical profession unite in asking Congress to appropriate $100,000 as an "anæsthesia fund," to be distributed equally among the families of Long, Wells, Morton, and Jackson. We presume that the bill referred to is the practical outcome of that suggestion.

Dr. Frank West has been elected resident physician to the Maryland University Hospital.—*Maryland Med. Jour.*

Medical Registration in Iowa.—A bill has been introduced into the Iowa Legislature by Dr. Von Lackum, Physio-Medicalist. It provides that an incorporated society of each medical school shall have power to appoint its own Board of Examiners and issue licenses. These licenses are to be issued to those holding diplomas from any incorporated college or to those who have passed an examination before the Board. There is very little reform here.

New Hospital and Dispensary in Brooklyn.—Ground will soon be broken for the new Eastern District Hospital and Dispensary, which is to be erected in South Third Street, Brooklyn.

Scarlet-Fever at Jersey Heights.—Scarlet fever has for a number of years prevailed extensively at Jersey Heights, and seems to be endemic there. There is an unusually large number of cases at present.

Priority given to Doctors' Bills.—Captain John H. Chamberlayne has introduced a bill into the Virginia Legislature, of which the following is a portion:

"Where the assets of the decedent in the hands of his personal representatives, after the payment of funeral expenses, *claims for physicians' fees for services rendered during the last illness of the decedent*, and druggists' accounts for articles furnished during the same period, and charges of administration, are not sufficient for the satisfaction of all demands against him, they shall be applied—first, to debts to the United States; secondly, taxes, levies, etc.; . . . thirdly, debts due as personal representative; . . . fourthly, all other demands ratably, except those in the next class; and, fifthly, voluntary obligations."

Medical Graduates of 1880.—The number of graduates from medical colleges this spring, as ascertained up to date, is as follows:—Medical College of University of New York, 200; Bellevue Hospital Medical College, 142; College of Physicians and Surgeons, 117; Jefferson Medical College, 196; Medical College of University of Pennsylvania, 104; Women's Medical College of Philadelphia, 14; Louisville Medical College, 56; Medical College of University of Louisville, 95; Louisville Hospital Medical School, 33; Rush Medical College, 144; Cincinnati College of Medicine and Surgery, 28; Miami Medical College, 46; Medical College of Ohio, 119; Medical College of University of Buffalo, 56; Detroit Medical College, 27; Iowa State Medical College, 22; Yale Medical College, 2; Medical College of Virginia, 20; Baltimore College of Physicians and Surgeons, 110; National Medical College, 12; Georgetown Medical College, 10. Total, 1,553.

A New State Medical Society in Tennessee.—The colored physicians of Tennessee have organized a State Medical Society; Dr. James M. Jamison has been elected President.

Discords.—The registrar of the Louisville Medical College is charged with double-dealing by the editor of the *Medical Herald*. The latter introduces affidavits into the *Louisville Medical News* to prove that the aforesaid registrar received a postal card addressed to the Dean of the Kentucky Medical School. Instead of turning over the communication to the proper officer, the registrar answered it himself, disparaging the Kentucky Medical School, and offering inducements to the prospective student to come to the Louisville Medical College. The registrar denies the truth of the story; meanwhile we have a newspaper war.

Diphtheria on Long Island.—There is so much diphtheria at Cypress Hills, L. I., that many of the inhabitants are becoming alarmed. The disease is confined principally to the vicinity.

The Thermometer in Trephining for Epilepsy.—According to M. Broca, in deciding the question of trephining in epilepsy from convulsions, etc., occurring in a patient who has a depression of the skull resulting from a previous fall or blow, the thermometer will settle our doubts. If the temperature is raised on the injured side, the effects are due to the lesion, and the depressed fragment must be raised; in the contrary case, the symptoms are not due to the lesion, and operative interference is contraindicated.

Dr. Christopher Tompkins has been elected Professor of Anatomy in the Medical College of Virginia, to fill the place made vacant by the resignation of Dr. F. D. Cunningham. Dr. Cunningham will give a practical course of lectures on diseases of the eye and ear.

Duration of Pregnancy in the Elephant.—On March 10th a female elephant, belonging to a circus in Philadelphia, gave birth to a baby which weighed

21½ pounds, and was thirty-five inches in height. Thus, according to the Concord News, is the first recorded instance of an elephant breeding while in captivity, in any country, and also the first on record in which the period of gestation has been accurately determined to be twenty-one months and a half. The elephant was owned by a male elephant at Concord, N. H., May 25, 1878. The facts concerning this, and concerning the early history of its pregnancy, appeared in the RECORD for March 22, 1879.

An Orthopædic Congress will be held at Milan in September next, after the International Public Health Congress at Turin.

A General Congress of Public Hygiene and Medicine will be held in Brussels at the Palace of the Academy, next August.

Dr. Copeman, of Norwich, England, recently died at the age of sixty. He will be remembered for his contributions to gynecology, and especially for the so-called "Copeman's method" of dilating the cervix for the cure of the vomiting of pregnancy.

Dr. Thos. Fairbank, Surgeon to the Queen and the Royal Household at Windsor, died on Feb. 26th, of aneurism of an artery of the brain. Dr. Fairbank was but thirty-seven years old at the time of his death. His professional career had been a brilliant one; he won many medals while a student, and at the age of twenty-three became surgeon to the queen, succeeding, at the same time, to a very large practice. He was engaged in this at the time of his death.

The Troubles of Medical Co-Education.—Dr. J. W. White was, a short time ago, brought up before the Board of Governors of the Philadelphia Hospital on charge of having used such indecent language in his venereal clinic as to oblige two female medical students to leave the amphitheatre. Dr. White succeeded the late Dr. Frank Maury as visiting surgeon to the Philadelphia Hospital, and he has been giving instruction in venereal diseases during the past winter. The Board of Governors, to whom the complaints were made, investigated the matter. They found that one of the complainants was a woman who was neither a student nor a physician, and who did not hear the alleged "indecent remarks" at all. Two female medical students testified that they were obliged to leave the amphitheatre on account of the character of the lecturer's remarks. All the other evidence went to show that Dr. White only used such expressions as were proper and necessary for the instruction of the students. The Board of Governors unanimously acquitted him of the charge. The matter gave rise to considerable comment in the local papers, and the whole thing was unfortunate and disagreeable. It seems as though the field of venereal diseases at least might be left alone, or studied alone by medical women.

Compound Fractures and Statistics of the Antiseptic Treatment.—Mr. T. Holmes has analyzed 203 cases of compound fractures that were treated in St. George's Hospital during the past twenty years. Leaving out 31 cases where immediate amputation was performed, he divides the remaining 162 into three groups. In 33, strict antiseptic measures were employed. Seven cases, or 21 per cent. died. Three of the deaths (2 pyæmia, 1 gangrene) were surgically preventable. Sixty cases were treated by sealing the wound with blood, dry lint, or collodion, with a mortality of 14 or 23 per cent.; 9 of the deaths were from pyæmia. The third set of 69 cases includes all those treated by other methods. Here the mortality was 19, or 27.5 per cent. There were 10 cases of pyæmia, 2 of erysipelas, and 2 of gangrene. These statistics, although comparatively favorable to Listerism, are absolutely unfavorable to St. George's Hospital. It seems as though there must be something wrong when 18.5 per cent. of the cases of compound fracture die from pyæmia.

Dr. Richardson's Legacy.—The choice wines which were left Dr. Richardson to be used for scientific purposes only, have finally been disposed of. They are turned over to the chemists, who will analyze their bouquets.

The University of Berlin has 3,598 matriculated students in the present winter session, a larger number than it has possessed at any time during the sixty-nine years of its existence. Of this number only 475 are medical students, while the Faculty of Law have 1,315, and the Philosophical Faculty 1,621 hearers. In addition to the matriculated students, there are 1,593 unmatriculated students in attendance on the various courses of lectures. America has 57 representatives among the matriculated pupils, 9 of them being students of medicine. The Medical Faculty consists of 8 professors, 12 assistant professors, and 16 private tutors.

The State Board of Health of California, as now constituted, consists of seven members, five being medical men. Of these, one is an eclectic by diploma, another a homœopath by profession. Their appointment at first aroused considerable excitement, for the regular profession created the board and now have a sort of claim upon it. In addition to this, many of the homœopaths are violently opposed to vaccination. There is, however, no quarrelling among the members as yet.

Selling American Medical Diplomas.—The Department of State has recently received official information that American medical diplomas are being sold in Berlin.

Answers to Correspondents.

The Thermo-cautery.—Subscriber, New Orleans, writes: "I have been using the thermo-cautery for the last two years, but latterly my instrument refuses to work. The liquid used, pure benzole, is the same as that with which it always worked, and is renewed each time. By raising the platinum to a red heat in a blow-pipe flame it works, but ceases to do so the moment the temperature cools below a low red. Does the platinum by use undergo a change preventing it from condensing the benzole vapor? If so, can anything be done to remedy it? I would like to know if other surgeons have met with similar results. If this be uniformly the case, it will materially detract from the usefulness of the instrument, as it is too expensive to be frequently renewed."

[The fault lies probably in the rubber of the bulb, or in one of its valves. The rubber wears out and may be easily replaced. A good deal of force to the current of vapor is necessary to keep up good combustion.—Ed.]

Books Received.

Surgery in the Pennsylvania Hospital. By T. G. Morton, M.D., and William Hunt, M.D. Phila.: J. B. Lippincott & Co. 1880.

Original Lectures.

CLINICAL LECTURE UPON CASES OF GOITRE AND ATONIC DYSPEPSIA.

By BEVERLEY ROBINSON, M.D.,

LECTURER UPON CLINICAL MEDICINE AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

GENTLEMEN:—The first case I shall present to your consideration this afternoon is that of the woman before you, who is affected, as you perceive, with a large tumor of the neck. She is of about the middle age, a widow, has two children, does her own housework and some washing outside, and has always enjoyed excellent health. She was born in the province of Luxembourg. She has resided fifteen years in the United States, and the swelling began to be noticeable about five years previous to her arrival here. She comes to me through the courtesy of my friend, Dr. Frank Bosworth, asking to be relieved, if possible, of what to her is a distressing infirmity. Her tumor has not hitherto interfered with any of the important functions. She can swallow without difficulty, she has no dyspnœa, her voice remains unchanged; she is free from vertigo and headache, and there are no painful sensations in the neck, or the arms. Thus we recognize there are no unpleasant or dangerous pressure effects from the presence of this large, firm, lobulated mass. But what is it? Will any one among you tell me? One gentleman says it is a goitre. Now, I would like to know his reasons. He answers that it is so because it has reached its actual size slowly, and is hard. But may not this be said of a glandular tumor of this region. True; but, he replies, a glandular tumor would have a tendency to suppurate. Not necessarily, gentlemen; but then a glandular tumor would probably be conjoined with enlarged lymphatic ganglia elsewhere, and there would also be present other evidences of a lymphatic or strumous constitution. But might not this tumor be confounded with a cyst of the bursa over the thyroid cartilage? It might, but its situation is proof against this diagnosis. The enlargement of the thyroid bursa would be situated higher up in the neck. Moreover, this variety of tumor is rarely encountered. I have been in a position to have seen such cases for several years past, and thus far have only seen one, and you may all be in practice many years before seeing an example of the affection mentioned. Tumors of the thyroid gland are, on the contrary, not infrequently met with. As regards etiology, what caused this tumor? for we most of us recognize it to be a goitre, and we will not call this diagnosis in question any more. This patient was born and lived in a healthy locality in her youth. She drank rain-water, because no other potable water could be had. She has two children, and her confinements were natural. I might go on trying to find a sufficient cause for the development of this tumor of the thyroid gland, but I have already questioned her closely from this standpoint, and am unable to make out anything satisfactory. You know, doubtless, that such tumors are endemic in certain countries. In the valleys of Switzerland, more particularly, they are often encountered. "Crétins," as they are called, are the poorly developed creatures who are afflicted with them, and their growth is usually attributed to the fact that they drink habitually water which flows from the glaciers, and also the circumstance that the air they breathe contains little or no iodine. Again, painful or frequently repeated confinements have been instanced as efficient causes of such tumors. Manifestly, neither of these causes have been instrumental in occasioning what we notice in our patient. I will not employ any more time in pursuing the question of etiology, but will immediately consider the very important one of treatment. This patient has been told by a friend that her tumor could be taken out, and that some one at this college was the man to do the operation. Now, gentlemen, I greatly fear I am not the person she is in quest of. May a radical operation be performed in a similar case, and what are its chances of success? Undoubtedly it might be performed. It has already been performed more than once successfully, by eminent surgeons; and yet so distinguished an operator as Gross of Philadelphia does not hesitate to denounce it as unwarrantable.

This is, I believe, going too far, in view of our present knowledge. Radical extirpation of a goitrous tumor of this size must of necessity become a hazardous experiment, and one in fact which would endanger the life of my patient—and, is it justifiable? This woman is not a great sufferer. On the contrary, she has no inconvenience at all from this tumor, other than what pertains to her self-love. She dislikes excessively to be an object of criticism and idle curiosity, and hence seeks to have it removed. My advice to her is not to allow it to be operated upon; certainly not for the while. Now, what method of treatment shall I advise? Here I may stop a moment to say a word in regard to the different kinds of goitre. They are not all similar. Virchow has described three varieties: the simple variety, which consists essentially in the hypertrophy of the normal elements of glandular structure; the fibrous variety, in which the interlobular cellular tissue is greatly increased in amount, and which seems to exercise a sort of constricting power over a certain number of healthy lobules, and thus produces more or less secondary cystic degeneration; and a third variety, in which the vessels are very largely developed, and with which you are perhaps familiar when it is allied to an affection of the heart, prominence of the eyeballs, and a gradual wasting away of the health and strength of the patient. By this description I evidently have in my mind's eye the disease known as Graves' or Basedow's malady. To this division of Virchow, Dr. Morell Mackenzie, of London, has added two sub-varieties known as the fibro-cystic and fibro-nodular. Well, the patient before me is certainly not an example of the first or soft variety. If she were, her treatment would be very simple, and I should unhesitatingly recommend repeated applications of the blistering fluid of the British Pharmacopœia, or of the collodion cum cantharide of our own, and in this way I would expect that she would ultimately be wholly relieved of her actual cause of disfigurement. I place my hand over the tumor and I find no apparent pulsations. I examine the tumor carefully with my eyes and I notice no great development of superficial vessels. There is no heart trouble, no prominence of the eyes; this woman's general health is excellent. I at once eliminate Graves' disease. How about fibrous goitre? This tumor is firm, nodulated, and presents a very salient portion upon the median line, as to which I am doubtful whether or not it be a small cyst. I believe I would favor the existence of a cyst had not my patient informed

me that she had been punctured over this region not long ago by means of a hypodermic needle, and nothing but blood came out. Some among you may remember a remarkable case of the fibro-cystic kind that I had the honor of showing you at this clinic two winters ago. The woman's photograph before and after treatment I now pass around. This case was treated after the well-known method of Dr. Mackenzie Bruce, by means of tapping, and afterward the injection of a strong solution of tincture of iron, the object being to make a chronic abscess of the cyst. The iron injection is essential in similar cases, because there is considerable hemorrhage from the walls of the cyst after drawing off its contained sanguinolent and albuminous fluid. In this case I allude to many different treatments were undertaken—ergot was injected, caustic darts were introduced into the central and vegetating portion of the tumor, etc. The patient finally disappeared, having made an incomplete recovery.

In the case of my patient here to-day, I counsel, 1st, injections of tinct. iodinii comp., repeated once a week for many successive weeks. Upon each occasion from ten to twenty drops of the undiluted compound tincture should be employed. By such means I promise her partial relief from her large tumor. It will not cure her, but it will notably help her. Such is my own experience in similar cases; such, too, I believe is the experience of colleagues in the profession, well authorized to speak in like matters. If the iodine treatment does not succeed, I would advise, 2d, treatment by electrolysis; in other words, the introduction into the structure of this tumor of one or more surgical needles connected with the negative pole of an ordinary galvanic battery, while the sponge connected with the positive pole is held in the hand of the patient. The current from ten or more cells should be passed during fifteen or twenty minutes, and repeated upon several occasions, at intervals of a few days. In this way diminution of the tumor in size may be expected, owing to the chemical decomposition which will surely take place in its cell-elements. I have no personal experience in this matter, but have seen one very large growth of similar nature and location, in which electrolysis had obviously been of considerable value.

Not very long ago I was witness of an operation in one of the large city hospitals, in a case of enormously developed thyroid gland, in which the operator made use of the following plan: he first made a vertical incision over the bronchocele through the skin. He then separated the integument by careful dissection from the soft tissues beneath, and, after isolating the mass of the tumor as nearly as possible, he passed a platinum wire completely around its base, and after bringing the wire to a white heat by the aid of a galvanic battery, he proceeded to divide the tumor at its pedicle. I regret to add that this operation, although well conceived and executed, did not prove radical; a large portion of the bronchocele remained behind in situ, and a suppurating wound, which closed slowly and with some intercurrent accidents of septicemia, was a source of anxiety during several days. Still the operation appeared to me one that might be repeated, with better success, under more favorable conditions, and for this reason I have been led to mention it to you.

My second case is one of those which bespeaks the attention more, perhaps, of the practitioner than of the student of medicine, and yet we may even here find food for some practical remarks. She is a poor, sickly looking woman, who complains of occasional vomiting, distress over the epigastric region after taking food, and pains which are neuralgic in character and affect especially the lumbo-abdominal nerves. She is thirty-two years of age, and the mother of a pale, ailing, waxy looking, infant. Here, gentlemen, is a case of dyspepsia of dyspepsia of the atonic type allied with general depression of nerve-force and the signs of considerable anæmia. She came under my care after having run through quite a long list of symptomatic remedies, such as lime-water, solution of bismuth with cherry-laurel water, sulphate of iron mixture, Horsford's acid phosphates, pepsine and bismuth, and finally, a powder composed of cubebs, ipecac, soda, and bismuth. Surely she had already taken enough drugs to benefit her, and in fact she professed to have been benefited in a certain degree. When I saw her for the first time she had an occasional hacking cough which made her solicitous about her lungs. I found no physical signs of any pulmonary disorder, and after careful examination concluded that her cough was only another symptom of her dyspepsia, and as this symptom got better, so her cough would lessen or disappear entirely. In regard to diagnosis, I have fairly eliminated carcinoma of the stomach by reason of her age, the absence of any epigastric tumor, and of any chocolate-colored vomited matters or fæcal discharges. The pain she speaks of does not seem sufficient to make one suspect ulcer of the stomach, and she has never had any hematemesis. Moreover, she eats bread as readily as other solid substances, and has never remarked that milk seemed to suit her better than other fluids. I will only raise the question of chronic gastritis, at the suggestion of a member of the class, in order to dismiss it. There is no tenderness increased by pressure over the epigastric region, there is no febrile movement, and the tongue is coated with moderately thick white fur. It is not especially broad or flabby, and is not at all marked by the impression of the teeth along its margin. I gave this patient, during a few days, tablespoonful doses of mist. rhei et soda, and placed a large belladonna plaster over her epigastric region. She returned to me one week afterward, stating that she was slightly better, but suffered from a sort of gone feeling, or weakness in the region of the stomach. Her bowels remained constipated. I now gave her a small quantity of emulsion of cod-liver oil with saccharate of lime, to be taken in repeated doses of one to two drachms fifteen minutes after eating. I also prescribed the fluid extract of cascara sagrada for her costive bowels. To-day her motions are easy, and she has suffered less from stomachal pain and functional disorder than before during quite a long period. Now, gentlemen, look at this woman's tongue, and tell me, first, whether or not it is a true index of the condition of her stomach, and then what I must do to relieve her of what remains of her dyspeptic condition? I do not believe the tongue is always indicative of the state of the mucous membrane lining the stomach; but I am quite sure, in this instance, it shows that it would not take much ill-advised medication to set up even more irritative action than now exists in that organ. If we were merely to look at the general condition of this patient, almost any one would immediately affirm that she requires iron or quinine. But will her stomach bear either the one or the other at this time? I do not believe it will. I am confident that quinine would increase her actual difficulty, cause pain, increase of nausea, and attendant headache. One of Trousseau's dicta was, Don't give quinine when

your patient has a furred tongue; and for my part, I believe this great clinician was right. Nux vomica is what is needed in such cases, and given in a manner that I will mention presently. Iron salts are no better, under present circumstances, than quinine. Her stomach would not tolerate even the mildest of them. If this patient does not rapidly improve upon her present medication, I shall place a small fly-blister over her epigastrium, and give her tincture of nux vomica. At first I shall try her with five to ten drops diluted with water, immediately after eating. But if the remedy does not suit her in like doses, I will not abandon its use immediately. I will try her with very small doses of one drop or half a drop, or less still, and I shall hope thus to obtain effects which I may not obtain with the larger and more tangible doses. You must prepare yourselves, gentlemen, for a few seemingly heretical ideas. You might be inclined to call me homœopathic. I am not either homœopathist or allopathist in any narrow or restricted sense. I simply use remedies to produce certain wished-for results, and facts are more evidence to my mind than any number of well-constructed theories. Not long ago I was physician to a lady who was suffering from distressing dyspeptic symptoms. I had run through my own armamentarium with little or no good results. I called in consultation a very distinguished allopathic practitioner of this city. He advised the suppression of pepsine and bismuth powders I had been giving, and in their stead counselled the employment of very minute doses of nux. The counsel was followed, and the result was to me surprising, but, nevertheless, most beneficial to my patient. I am told by my professional friend, whose therapeutic acumen is undoubted, that he has been equally successful in many analogous cases. Doubt is the beginning of belief—the saying goes—and where I had great doubts, I am now disposed to believe. But here let me say a word about my use of cod-liver oil. Was it a rational prescription? I think it was. My patient wants fatty substances in a most assimilable form. Now, cod-liver oil in small quantities, and when well emulsified by means of an alkali, supplies that need. One must burn up hydrocarbons; and if one does not get them from the ingesta, they will be taken from the tissues of the economy, and that we wish in this instance to avoid. Moreover, theory apart, I can affirm that I know of no remedy which will tend to correct more effectually the feeling of epigastric weakness of which this patient complains, than the moderate use of cod-liver oil in nature or in the form of an emulsion. There is one form of gnawing at the stomach, of which I observed a case closely not long since, which is annoying, at times quite painful, and which appears to be caused by an unhealthy or undue secretion of gastric juice at a time when the stomach is partially empty, but does not, under ordinary circumstances, call for food. The instance I allude to is one in which the patient was seemingly very well in other respects; but, about one hour before lunch and dinner, began to suffer from these disagreeable sensations in the epigastrium. Thanks to the perspicacity of a medical friend, I was able to relieve the sufferer from his complaint by the use of the following prescription:

℞.	Potass. acetatis	ʒ ss.
	Tinct. nucis vom.	♏ ij.
	Infusi quassiæ	ad ʒ iij.

S. A teaspoonful, soon after meals, in a little water.

I presume this remedy acted in two ways: first, by stimulating the nerve-force of the stomach, and thus causing the orifices of the gastric tubules to contract; and second, by neutralizing any excess of gastric juice which was poured into the stomach during the digestive period. Doubtless, in consequence of this double effect produced, a morbid habit was broken up and the gastric glands only became active at their appropriate season, or when the stomach was normally irritated by healthy ingesta, both solid and fluid.

Original Communications.

REMARKS ON
RECTAL FEEDING IN DISEASE.

By WILLIAM WARREN POTTER, M.D.,

BATAVIA, N. Y.,

PHYSICIAN TO THE NEW YORK STATE INSTITUTION FOR THE BLIND.

[A Paper read at the meeting of the Medical Society of the State of New York, held February 3, 4, and 5, 1880.]

For a considerable period of time it has been well understood that nutritive aliments introduced into the body per rectum were capable of sustaining life almost indefinitely, even when unaided by the ordinary methods of ingestion. It is, however, a matter of considerable doubt whether the knowledge of this fact has been made as useful in the field of therapeutics as might have been reasonably expected from a method so potential, so simple, and withal so certain in its action.

Two causes, it appears to the writer, have operated in a large measure to narrow the field of usefulness of rectal alimentation in the management of disease, viz.: first, a want of proper confidence in the measure on the part of the profession; and second, a prejudice against it on the part of the laity.

The latter state of things is but a natural outgrowth of the former; so for both lamentable conditions we, ourselves, are responsible. If, therefore, the first-mentioned hindrance can be removed, the other obstacle falls to the ground as a matter of consequence.

It is confidently believed that in the intelligent discussion of methods of science and practice on all proper occasions, much can be done to strengthen our own hands on the one side, as well as to remove prejudice and doubt from the minds of the laity on the other.

The remarks which the writer is about to offer on the subject of rectal feeding, will only embody a few thoughts suggested by a somewhat limited clinical experience with the method, together with some ideas derived from a hasty glance at a portion of its recent literature.

Perhaps it were as well to begin with a narration of cases; yet, as nothing can be more wearisome to the listener, or dreary to the reader, I will be brief, limiting the record to four of my latest patients with whom the method has been employed.

Case I.—Mr. L——, aged fifty years, came under my observation May 24, 1879, suffering with chronic catarrhal bronchitis. After some months pharyngeal ulceration began, when dysphagia became a troublesome factor in the case. The blandest aliments, and even water, were now swallowed only with the greatest pain, and finally, buccal ingestion became impossible.

Rectal alimentation was substituted therefor on the 25th day of October, and was regularly kept up until the death of the patient, January 6, 1880. For seventy-four days the rectum was the main avenue of nutrition in the case, the only nourishment taken by the mouth during that period having been a few raw oysters occasionally, and less than three pints of cod-liver oil, except during the last few days of life, when milk-punch was thrown into the stomach through an œsophageal tube. When the rectal feeding was inaugurated the patient had taken very little food for a week, and death from exhaustion seemed imminent; but, from that moment, the strength and vitality improved so much as to give him hopes of ultimate recovery. The friends, however, were advised of the incurable nature of the malady, the disease having now degenerated into a well-marked form of broncho-pharyngeal phthisis.

The gratifying features of this case may be summed up as follows: that, by a well-organized and thorough plan of rectal alimentation and medication, the patient was rescued from impending death, and a two months' lease of life thereby obtained, thus enabling him to adjust important business interests which, without his personal attention, would have embarrassed his estate.

Case II.—Mrs. X——, aged 28 years; married July 25, 1879; consulted me October 30th for gravid nausea and inanition, having been for some time previously under the care of a homœopathic practitioner. The case presented a history of chronic gastric catarrh, extending back through a period of some years, to which was now superadded the excessive and uncontrollable nausea and vomiting of pregnancy. Examination by the touch and speculum discovered only the normal condition of a uterine body, say ten weeks pregnant. There was no erosion of the os; the cervical canal appeared healthy, and the parts were free from discharges. The position of the uterus was also normal, and the other pelvic organs healthy. All food, and even water, was now being rejected by the stomach, the retching and vomiting almost constant, as well as painful, and emaciation was marked. Rectal alimentation was, therefore, instituted November 2d, when all buccal ingestion was suspended. The potassic bromide was also given per rectum, according to the method of Prof. Busey,* which had the effect to so modify the nausea and vomiting that, by the 9th, small quantities of iced lime-water and milk were allowed per orem. For the next three or four days the patient's condition continued to improve so much that her husband felt warranted in postponing a consultation, which I had proposed, with an eminent obstetrician residing in a neighboring city. Finally, however, the rebellious stomach again began to reject everything, and on the 20th all stomachal ingestion was positively prohibited. Rectal alimentation and medication were steadily maintained for the ensuing fourteen days, to the exclusion of all other methods, and by this time the nausea and vomiting had nearly ceased.

In the meantime, however, the patient's mind became confused and wandering, although her physical condition seemed not to retrograde to any appreciable extent. On the 5th of December buccal ingestion was partially resumed, though only the blandest aliments were allowed, and these in small quantities, cautiously administered. Rectal alimentation was, moreover, still maintained as the chief dependence for nutrition. I should have mentioned that on the 25th of November, Dr. J. B. Cotes, a physician of large experience and undoubted skill, was invited to consult me in the case. He cordially approved of the plan which was being pursued, and advised its continuance as he did, also, at a later consultation. From the 5th to the 11th of December the condition of the patient remained apparently unchanged. She took small quantities of broth, lime-water and milk, barley water, etc., by the stomach, as well as beef essence, brandy, milk, and eggs by the rectum. Glairy mucus welled up from the stomach in greater or less quantities daily, from the commencement of my attendance, though without much retching or vomiting after December 5th. On the 11th of December I relinquished the care of the case to Dr Cotes for the succeeding ten days, during an absence from town. Meanwhile, another physician was associated with Dr. C., as counsel, and I am informed that this *gentleman*, who shall be nameless, for obvious reasons, indoctrinated some of the friends of the patient with the idea that the cerebral disturbance was caused by the rectal feeding, or the stomachal rest, or both—in short, that she had been starved at my hands. Be that as it may, somebody succeeded in so prejudicing the husband against the methods which I had employed, as to make it impossible for me to return to the case. The patient died on the 25th day of December, Dr. Cotes continuing in charge, and he informs me that rectal feeding was maintained to the last.

It is worthy of special remark that the potassium salt operated to control the hystero-neurotic† symptoms most effectually in this case, and, but for the fact that chronic gastric catarrh had so long preexisted, thus seriously complicating the pregnant sickness, I have no doubt that the rectal alimentation and medication would have proved successful. Moreover, in spite of all, life was prolonged much beyond any possible point, had the stomach alone been depended upon as an avenue of nutrition.

Case III.—Mrs. Z——, aged about 24 years, consulted me November 3, 1879. Her previous history disclosed a long-standing case of gastric catarrh. Present condition: emaciation well marked; stomach rejects all food, and even water often returns; eructation of glairy mucus constant and profuse. Examination per vaginam revealed the presence of a small ring-pessary, which the patient informed me she had worn for more than a year, on account of some supposed malposition of the uterus. The pessary was removed as being no longer required. The os uteri, as seen through the speculum, was healthy, though the cervical canal was filled with ropy mucus, while the endometrium was sensitive, and bled when gently touched with the probe. She had never borne children, and stated that she had never miscarried. It is proper to add that she had not lived with her husband for the past two years or more.

November 5th.—On my visit to-day I was shown more than two quarts of viscid, glairy mucus, unmixed with ingesta or other elements, which had been vomited during the previous night. I immediately commenced a systematic course of rectal feeding, prohibiting, at the same time, all stomachal alimentation. Under this plan the stomach soon became more quiet, and no desire for food per orem was expressed. Thirst, which was never extreme, was readily allayed by a goblet of water per rectum,

*Am. Jour. Med. Sciences, January, 1878, p. 140 et seq., and January, 1879, p. 112 et seq.

†Engelmann: Gynecological Trans., vol. ii., p. 518.

administered twice daily, together with occasional chips of ice per orem. The nourishment of the body, under this plan, was fairly maintained; but, at the end of three weeks, her mind, which had already, at times, exhibited confusion, now began to manifest symptoms of acute mania.

December 5th.—Small quantities of very bland aliments were now allowed by the stomach, cautiously administered, however; these were well retained, though rectal alimentation was still continued supplementary thereto.

December 10th.—Beef-essence, in teaspoonful doses, directed to be given per orem. This patient was, on December 11th, confided to the care of Dr. C. F. Rand for the next ten days, for the reason of my absence from town referred to in the previous case. While I was away the same practitioner, alluded to before, was invited to a consultation in the case, and he also visited the house daily for some days, as I am credibly informed, in the intervals of Dr. Rand's regular visitations. On my return I found that the friends of the patient had obtained the impression, in some way, that the cerebral disturbance had been produced by the methods which I had employed, viz.: rectal feeding and medication, and stomachal rest; whereupon my attendance ceased. I understand, however, at the present writing,* that rectal alimentation is still maintained in the case, and with slow but steady improvement.

Case IV.—Mr. W. H. P——, aged 57 years, consulted me November 10, 1879, for inanition and its consequent debility. Abdominal palpation revealed a tumor in the right hypochondrium, besides general tenderness on pressure over the entire region of the liver. There had been, for many months previously, general digestive disorder, with foul, gaseous eructations; moreover, the patient was now quite emaciated. I expressed the opinion that the symptoms pointed to malignant disease of the left lobe of the liver, although I did not, at that time, feel quite sure as to its true nature. He experienced so much distress after taking food, that I advised rest for the stomach for a time, and that rectal alimentation be substituted. In two days I was called and requested to assume charge of the case, the patient having been, for some months previously, under the observation of a homœopathic practitioner. Under perfect stomachal rest for a week, with rectal feeding regularly conducted, the stomachic condition so improved that buccal ingestion was cautiously resumed; only the blandest aliments, however, were allowed, supplemented with nutritive clysters. This plan has been steadily adhered to until the present time, with a gradual improvement in the stomach symptoms, much to the comfort of the patient; nevertheless, his physical condition does not change for the better. He is still greatly emaciated, and the tumor appears to increase in size, though very slowly.

Prof. James P. White, M.D., of Buffalo, N. Y., was invited to consult with me in the case, and did so on the 7th of January last. He concurred with me in diagnosis and treatment, and likewise gave an unfavorable prognosis.

I have briefly sketched these cases, in outline, for the purpose of basing thereupon some remarks germane to the general subject of rectal feeding in disease; and, for convenience, I have arranged what I shall have to say under three general heads, viz.:

I. Stomachal rest.

II. Methods and rationale of alimentation.

III. Conclusions.

I. First, then, of stomachal rest. A considerable experience and observation has convinced me that an essential factor in the employment of rectal feeding, especially in the severer forms of stomach disability, is absolute and unconditional rest for a time, for that organ, in so far as the introduction of ingesta is concerned. Moreover, I am not alone in this opinion, as I shall presently show. I am not unmindful of the fact that this will, oftentimes, appear to the friends of a patient as a stern, and possibly cruel mandate. Indeed, I have even heard physicians intimate as much, and say, when besought on the subject, "Oh, yes! always give some food by the stomach; a portion of it will stay and do some good;" and this, too, when everything was being tossed back as soon as swallowed. Nothing can be more harmful, in my view, than to torture an irritated and rebellious stomach in this manner, and nothing could be more reasonable than to apprehend injury from stomachal ingestion in such cases.

It cannot be denied that cases occur, now and then, where the stomach will not retain even the blandest aliments, either liquid or solid, and it needs no refinement of logic to prove that such a condition would only be aggravated by the gastric ingestion of any substance whatsoever. Would it not be far better to rest such a stomach until the disturbances shall have been sufficiently repaired to warrant the belief that the assimilative processes have, at least, been partially restored?

Says Leube, in writing upon chronic gastritis:* "After the diseased gastric mucous membrane has been, as it were, prepared for recovery by one of the methods just mentioned, the most important indication is *to preserve it from all irritation* which might interfere with the cure. This indication is only perfectly fulfilled when, for a considerable period, absolutely no food at all is received into the stomach, for even the blandest nourishment excites the activity of the affected mucous membrane, and in this way may disturb the healing process. In severe cases, therefore, it is always advisable to prevent entirely the reception of food by the mouth and to nourish the patient for some time entirely by the rectum."

Again, when writing upon cancer of the stomach,† the same author remarks: "If these regulations are ineffectual, it is well to give the stomach complete rest for a time by the employment of nourishing injections." This author makes further reference to the importance of stomachal rest for even a considerable time, when speaking of gastric ulcer, acute gastritis, and some other diseases of the alimentary canal. In the excessive and uncontrollable vomiting of pregnancy, a number of writers have of late directed attention to the importance of entire prohibition of stomachal alimentation as a remedial resource. Prof. Busey, in the papers already referred to, makes mention of its efficacy.

Prof. Henry F. Campbell, M.D., of Augusta, Ga., in a paper lately published‡ "On Rectal Alimentation, etc., in Pregnancy," bears testimony, in measured terms, to the necessity of rest for the stomach in gravid nausea and inanition. The writer of this article has also discussed the question, *inter alia*, of stomachal rest as an important factor in the successful management of the obstinate vomiting in pregnancy, in a paper which will be found in the *American Journal*

* January 28, 1880.

* Ziemssen's Cyclopædia, vol. vii., p. 184.
† Op. cit., p. 253.
‡ Trans. Am. Gynæcological Soc., vol. iii., 1878.

of Obstetrics for January, 1880. Did time permit, many other authorities might be cited whose opinions bear strongly upon the importance of prolonged stomachal rest in cases of severe disability of the upper portion of the digestive tract, but it would seem an excess of sentiment to dwell over much upon so simple and plain a question, where the propriety of the practice cannot be doubtful.

II.—We therefore pass to the second part of our discourse, viz., methods of alimentation, in which will also be discussed, to some extent, the rationale of the efficiency of rectal ingestion. Since it is desirable that the rectal food shall be a concentrated form of liquid nourishment, it would seem that the articles best adapted to the purpose are beef-essence, meat broths, milk, whipped cream, raw eggs, etc.

Dr. Nathan Bozeman, of New York, in a recent most valuable and instructive paper on ovariotomy,* recommends the employment of "mashed beef" in rectal feeding, which he thinks greatly exceeds in value any other form of animal nutriment generally made use of for this purpose. It is prepared by chopping say three pounds of fresh beef very finely, then mashing it in a wooden bowl with a pestle. A teacupful of cold water is now added and thoroughly incorporated with the mass. The whole is then strained through coarse crinoline, when it is ready for use. It can be kept in a cold place within a glass fruit jar, and should be warmed a little before being drawn into the syringe. For some time past I have made meat juice obtained in this way, the basis of rectal ingesta for patients requiring this method of nourishing, and can testify to its value and efficiency. I am often in the habit of adding to it some of the other articles mentioned, as well as arrowroot, animal jellies, the various condensed preparations or extracts of meat, etc. From four to eight ounces of food prepared in this way may be administered, say two to four times a day, according to the necessities of the case; and, should the rectum become irritated or intolerant of the clysters, the addition of a few drops of laudanum, or, still better, of Squibb's compound liquor of opium, will, speaking generally, arrest such a tendency. Brandy, quinine, and any other remedies needed, can be added to the nutrient injections, according to the requirements of each particular case. In cases where absolute stomachal rest is enjoined, it is well to give, per rectum, a goblet of water once or twice a day. This will have the effect to prevent or relieve thirst and dryness of the mouth, quite as effectually as if given per orem. In many diseases of the stomach and œsophagus, the supply of food and water must take place exclusively through the rectum.† Under this plan, however, rectal alimentation, medication, and stimulation can be gradually carried to the point of affording the greatest amount of nutrition and support. When it is judiciously and faithfully carried out, it furnishes a most precious way of restoring the functions of an irritable or diseased stomach, and is, in many instances, the *only* way in which that organ can be prepared for the ultimate reception of food and medicine.

The resumption of buccal ingestion must, however, be made under the most careful watching and with the greatest precautions; since too early resort to the stomach, in severe cases, for the introduction of either food or medicine into the system, is highly prejudicial to success, and oftentimes provokes irreparable mischief. Great caution should be observed, therefore, in selecting such articles, both of medicine and of food, as may be best adapted to the ends in view, and particularly in testing them with the strength or tolerance of the stomach.

With defibrinated blood as a rectal aliment I have no experience, but, on theoretical grounds, I should expect good results from its employment. It has been used by Dr. A. H. Smith, physician to St. Luke's Hospital, New York, in a large number of cases, and I understand that its therapeutical value has been clearly demonstrated by that observer.‡

More recently, Dr. F. L. Stewart, of New York, has brought to the notice of the profession a desiccated preparation of blood§ for rectal alimentation, which is now on trial at St. Luke's and other places. If the introduction of blood into the system per rectum should prove as certain and effectual in its action as claimed by its advocates, then will the days of blood-drinking and transfusion be numbered; since the former disgusts many patients, while the latter, even in the most skilful hands, is not unattended with danger. "But its injection per rectum is an easy and safe operation, which can be frequently repeated without risk of injury."‖

Says Dr. Stewart, in the paper already referred to: "Desiccated blood is therefore suggested for rectal alimentation, where the life powers are threatened by asthenia, due either to the loss of blood, loss of nerve-power, or both. It is indicated in all cases where, for any reason, digestion is impaired, in cachectic states from special constitutional poisons, and in all cases where impaired blood, nerves, or digestion give rise to the anæmic condition with its resulting general debility, hypochondriasis, or other functional disorder."

This brings us to a brief study of the rationale of the efficiency of rectal feeding in disease. What becomes of the aliments when placed in the rectum for purposes of nutrition? In what manner do they finally reach the blood in sufficient quantities to sustain life? Are they absorbed directly by the rectum or colon? Do the digestive fluids descend to meet them in the large intestine, and there prepare them for chylification and absorption? Or does the food ascend to the small intestine, where those digestive principles abound for its assimilation, and where, likewise, are found in abundance lacteals for chylous absorption?

These interesting questions have engaged the attention of physiologists for a considerable period of time; but it is possible, after all, that clinical observation may throw considerable light upon the subject, and, perhaps, aid materially in its final solution. The fact that proper food, timely and wisely placed in the rectum, does, somehow or another, furnish nutrition and support to the body, is quite beyond cavil; but if the *modus operandi* of rectal feeding, in accomplishing these important results, can be assuredly determined, a greater confidence will obtain for the method, and, as a consequence, its domain in the field of therapeutics will be greatly extended.

No doubt the failure of rectal ingestion to obtain the high therapeutical importance which, in the opinion of the writer, properly belongs to it, has

* Med. Record, July and August, 1879.

† Ziemssen, vol. viii., p. 127.

‡ I regret that I have not Dr. Smith's paper at hand. See, however, Archives of Medicine, vol. i., p. 113.

Prof. Busey of Washington, D. C., writes me January 24, 1880, that he has also used it with marked benefit, and corroborates all that Dr. Smith says of its value.

§ Medical Record, January 3, 1880, p. 11.

‖ Stewart, loc. cit.

been due, in a large measure, to the incredulity which exists in regard to the digestion, assimilation, and final absorption into the blood of aliments, when administered in this manner. It is well known that both rectum and colon are comparatively deficient in lacteal vessels; moreover, if these organs were so endowed, they do not possess the necessary digestive fluids for the disintegration, solution, and chylification of the alimentary matters so requisite to prepare them for absorption into, and final admixture with, the blood. Hence, some observers—notably Leube—deny the possibility of rectal nutrition unless the food has been first artificially digested. While it is highly probable that the rectum possesses the capacity, in a limited degree, to absorb medicines, water, and even aliments in thin solution, whence they are received into the portal circulation, and then distributed to the system after digestion by the liver; yet this avenue would seem entirely inadequate to furnish sufficient nutrition for the sustenance of life during any considerable period. If, therefore, the absorption of aliments by the rectum or colon was, alone, depended upon to sustain the vital powers during prolonged rectal feeding, it is more than likely that disappointment and failure would result. In discussing this question, Dr. Campbell remarks* as follows: "No physiologist of the present day, however fully impressed with the wonderful capabilities of venous and membranous absorption, can feel perfectly satisfied that these alone, and without the intervention of some other factor wanting in the rectum, can rationally and adequately account for the success and apparently perfect efficiency of rectal alimentation as reported in journals—and here and there in some works on practice."

The most reasonable explanation of the efficiency of rectal alimentation is, in the opinion of the writer, to be found in the recognition of the reversal of the normal peristaltic action of the intestinal tube, whereby the rectal pabulum is propelled upward from the rectum to the small intestine, where it meets the requisite juices for assimilation, and where, also, abound lacteals for its absorption into the blood. This newly-recognized function of the alimentary canal has been, by its discoverer, Dr. Campbell, very aptly termed "intestinal inhaustion;" moreover, he also claims that this phenomenon must invariably occur when rectal nutrition is accomplished.

Dr. Routh bears testimony to the retrostaltic action of the intestinal canal after rectal feeding, in the following paragraph, which I shall take the liberty of quoting from his book:† "Aliment in a fluid state is often absorbed in this way (*i. e.*, nutritive injections), as in the sad examples of adult persons intent on suicide, and who have cut their throats. In these persons, swallowing in the ordinary way has become impossible, yet they have been kept alive for six weeks by these injections. The same is true for cases where, from disease of the stomach, food could not be swallowed without provoking vomiting. Life in this manner has been prolonged till the irritation of the stomach has subsided, and food could be taken in the ordinary way. Even cod-liver oil may be absorbed, if given in an injection. Persons who have so taken it, have complained to me of *feeling the taste of it in their mouths for hours after.*‡

That the alimentary canal frequently performs retrostaltic acts in its different sections, under conditions of irritation or morbid disturbance, is a fact of daily observation. In citing examples of this sectional inhaustion of the digestive tract, I adopt, in the main, the admirable description of Dr. Campbell.*

"I. 'Gagging' is an action of the faucial muscles which reverses that part of the act of deglutition in which they are concerned.

"II. Vomiting, regurgitation, rumination (Copeland-Pavy) and several acts of this class concern both the œsophagus and the stomach. The contents, both solid and fluid, ascend, being forced up into the mouth and out of it.

"III. The familiar phenomenon of the ascent of bile into the stomach, indicates inhaustion between these two portions of the alimentary canal.

"IV. Chylous vomiting (Pavy) is inhaustion from the small intestine, the result of a reversal of peristalsis.

"V. The stercoraceous vomiting in ileus and in strangulated hernia, and in a few other conditions of serious intestinal disturbance, in which the matters are fluid, semi-fluid, and solid, tells its own history, and we know the journey it has taken, and that it must have passed through the ileo-cæcal valve. . . .

"VI. The ascent of fæces under restraint of the sphincter ani, in which the solid mass . . . . ascends above the sigmoid flexure" into the colon, where it remains for some time, if the desire to evacuate the rectum is resisted; and this desire is only again provoked upon its redescent.

"We have seen, then," says Dr. Campbell, "that every section of the intestinal canal is at times subject . . . to inhaust, or receive from below the contents of the section continuous with it. That which is so familiarly and demonstrably true, as pertaining to one and all the parts of this alimentary canal, may certainly, under similar circumstances, be predicated as pertaining to the whole. Then this upward movement, continuously maintained from the rectum to the small intestine, is what I would designate as the intestinal inhaustion subservient to rectal alimentation."

The permeability of the entire alimentary canal by enema has been demonstrated over and over again by numerous observers. In the fifteenth century, Guaynerius related the story of a man who vomited a suppository which had been previously placed in his rectum.†

J. Mathias de Gradibus (Venice ed. of his work, 1502) relates the case of a girl twelve years old, suffering from ileus, who not only vomited fæcal matters, but afterward clysters were rejected by the mouth shortly after they were introduced into the rectum. This state of things lasted for three days, during which time suppositories introduced into the rectum were vomited in like manner.‡ J. Optheus reports a case (cited with others by Senneritus to prove that ileus is not due to obstruction, but to reversal of the normal peristaltic action of the intestine) in which a piece of tallow candle used as a suppository was vomited shortly after its introduction.§

More recently, Dr. Robert Battey, of Rome, Ga., has demonstrated a similar permeability of the alimentary canal. In a paper presented to the American Medical Association in June, 1878, an abstract of which appeared in the *Virginia Med. Monthly*, vol. v., p. 551, the author states that in March, 1873,

* Loc. cit., p. 282.
† Routh on Infant Feeding, p. 234, Wood's Library, 1879.
‡ The italics are mine.

* Loc. cit., p. 288.
† See foot-note to p. 836, Med. and Surg. History of the War. Medical Vol., Part ii., 1879.
‡ Ibid.
§ Ibid.

while giving a large injection of soap and water to a patient, she recognized the taste of soap in her mouth. In January, 1874, he established the feasibility of injecting fluids into the rectum of a cadaver until they escaped by the mouth.

Experiments had been previously made (1845) to the same effect by Alfred Hall, and reported to the Medico-Chirurgical Society of Glasgow.*

Dr. Arnott is cited by James Scott ("Commentaries on the Use and Necessity of Lavements, etc.," London, 1829, as having written: "From an erroneous opinion that what has been called the valve of the cæcum acts as a perfect valve, allowing passage *downward* only, few practitioners have ventured to order much liquid to be injected, for fear of overstretching or bursting the lower part of the intestine; and the possibility of relieving disease *above* the supposed valve has scarcely been contemplated. It is now ascertained, however, that fluid may be safely injected, even until it reaches the stomach.†

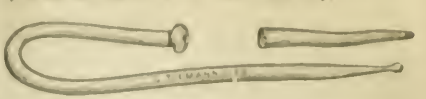
It would, therefore, appear that the permeability of the entire alimentary canal by enema has been clearly established through undoubted testimony.

I have taken some pains to study the phenomena clinically which have occurred in my own cases during the process of rectal feeding, through a careful questioning of the patients, and likewise by observations made in persons at the time of rectal ingestion. Soon after the aliments are injected a gurgling sound may generally be heard, and some intestinal commotion may also be observed. Moreover, the patients themselves, when questioned upon that point, have invariably informed me that they can "feel the injection going upward in the bowels" while the rumbling is going on. After the cessation of the commotion they have experienced no fear of the loss of the clysters. In some instances they have complained of tasting the aliments not long after their injection.

Experimental research on the lower animals, so far as made, goes to support the view that intestinal inhaustion occurs when aliments are placed in the rectum; and, if further experiments and observations should confirm those already made in regard to the retrostaltic action of the intestinal tube as an important factor in promoting the accomplishment of nutrition in rectal feeding, its rationale will be so simplified that all doubts as to its efficiency will fall to the ground.

Rectal alimentation will then take rank as a foremost therapeutical measure in all disabilities of the digestive tract, whether of reflex or structural origin, where stomachal ingestion is harmful or impossible; and it will likewise become an important agent in their intelligent management.

One word more before passing to the final section of this paper. I have observed that, now and then, the rectum becomes so irritated by the frequent use of the syringe as to jeopardize the success of the method by an occasional loss of the pabulum. To overcome this difficulty I have of late, in prolonged rectal feeding, been in the habit of introducing the clysters through a Wales' rectum bougie, previously carried into the rectum, and even past the sigmoid flexure. These bougies are made of pure, soft rubber, are quite flexible, and are tunnelled longitudinally, thus readily admitting the syringe nozzle. They are, in fact, most complete rectal-feeding tubes through which the nutritive injections can be easily propelled. The subjoined cut gives a tolerably good idea of these instruments, which are manufactured by Messrs. Tiemann & Co., New York City.



CONCLUSIONS.

The principles which this paper seeks to enforce may be formulated as follows:

I.—That rectal alimentation is a valuable agent, may, even an indispensable factor, oftentimes, in the management of all cases of disability of the upper portions of the digestive tract when, from any cause, stomachal ingestion becomes harmful or impossible.

II.—That stomachal rest, in so far as the entire prohibition of buccal ingestion can make it so, is a condition precedent to success in all the severer maladies for which rectal feeding becomes necessary. There cannot be the slightest doubt in regard to the adequacy of nutritive injections, to sustain life and maintain the nourishment of the body, wholly unassisted by the ordinary methods of ingestion, for a considerable period (from three months to five years), as attested by well-authenticated cases of record.

III.—"That rectal nutrition requires rather an explanation of its *rationale* than a demonstration of its truth."*

IV.—That in a more enlightened understanding of its value and certainty of action on the part of the profession, rectal alimentation and medication will obtain a wider range of therapeutical usefulness than it has heretofore occupied. Limited in the past, speaking generally, to the severer forms of chronic diseases of the stomach and œsophagus, I cannot doubt that they will, in the near future, become of vast service in the management of acute disease when, from any cause, the stomach becomes intractable and rebellious.

Example.—In October last I was treating a case of typhoid fever which, by the twenty-first day, became so critical that all hopes of recovery were abandoned by the friends of the patient. The case was rendered particularly desperate by the fact that the stomach now declined to further retain anything—water, food, or medicine. At this juncture, while collapse was threatened, I suspended all attempts at ingestion by the stomach, and gave injections of beef-essence, milk, brandy, ammonia, quinine, etc. This plan was steadily maintained for five days, when buccal ingestion was gradually and cautiously resumed, from which time everything progressed favorably; convalescence was promptly established, and the patient is now quite strong and well. There cannot be the slightest doubt, not only in my own mind, but also in the minds of others who saw the case, that success was due to the timely abandonment of the stomach, and the employment of rectal alimentation and medication.

V.—That the rationale of rectal nutrition is not satisfactorily explained in the absorption of the aliments by the rectum or colon alone; nor by means of the artificial digestion of the food previous to its injection, after the method of Leube; nor by the vicarious secretion of the digestion juices, according to Flint; nor by the attraction downward of the diges-

* Monthly Jour. Med. Sciences, vol. v., 1846, p. 1.

† See foot-note, loc. cit.

* Campbell, loc. cit.

tive fluids of the stomach and small intestine, until the alimentary mass is met and rectal digestion is accomplished, also an ingenious proposition of Flint. But I am persuaded that the adequacy of rectal feeding, in supplying nutrition and support to the body, can be fully accounted for in the recognition of the retrostaltic action of the intestinal tube—the "intestinal inhaustion" of Campbell—whereby the pabulum ascends to the small intestine, meeting there those digestive prineiples so necessary for its assimilation and chylification, preparatory to its admixture with the blood. Here, also, are found in abundance the lacteal vessels for the absorption of the chylous emulsion, ready to perform their part in the vital constructive process, whereby blood is made for the repair of the wasted and worn-out tissues, and for the building of such new ones as are demanded by the economy. Furthermore, that in this manner digestion is as certainly accomplished as though the food came by way of the mouth instead of the rectum.

VI.—That a timely and systematic employment of rectal alimentation and stomachal rest, in cases where the stomach is so disabled as to render the ordinary methods of ingestion harmful or impossible, is demanded alike by reasons scientific and humanitarian; and no person, except the most ignorant or malicious, could for a moment call it starvation. But, on the other hand, rectal alimentation, medication, and stimulation can be carried up to the point of affording the greatest amount of nutrition and support, and that wholly unassisted by any other means of ingestion.

VII.—That, in many forms of disease, stomachal ingestion is positively harmful, even though *all* food may not be immediately rejected. Such as is retained oftentimes undergoes decomposition, producing thereby fermentation, irritation, and distress, rendering it unfit for the purposes of nutrition; and, finally, the stomach expels the offending contents undigested. In such cases digestion is so disturbed as to render stomachal alimentation positively harmful—nay, even impossible; and its entire prohibition becomes at once a therapeutical factor of the greatest import.

VIII.—And, finally, that food sent upward through a healthy avenue, in good and sufficient quantities, will contribute with vastly greater certainty to the nutrition and support of the body, than when it reaches the absorbents through a diseased and disordered digestive tract, with its juices chemically at fault, and all its functions rendered morbid by pre-existing reflex or organic maladies.

FOUR CASES OF UNUSUAL DISLOCATION AT THE ELBOW-JOINT.

By ERSKINE MASON, M.D.,

SURGEON TO BELLEVUE AND ROOSEVELT HOSPITALS, NEW YORK.

Case I.—Dislocation of radius and ulna outward.

While making my visit at the Roosevelt Hospital, February 22, 1876, a boy twelve years of age was brought in the ward, having but a few moments before fallen from some rocks in the vicinity of the hospital, complaining of an injury to his left elbow-joint. The distance he fell, or how he struck, we could not ascertain from him, though the palm of the left hand being covered with dirt, while the other hand was comparatively clean, seemed to indicate that the force of the blow was received on the left hand while the arm was extended. The limb was in a slightly flexed position, though it could be flexed without difficulty. Upon examination of the elbow-joint a complete dislocation of both radius and ulna *outwards* was readily discovered. No swelling having as yet taken place, the relative position of the bones were quite apparent. The ulna was completely outside down, a little upward and resting, upon the external condyle of the humerus, while the head of the radius could be felt to rotate just beneath the integument, which was so tense that it seemed it must soon rupture, while the undue prominence of the internal condyle was strongly characteristic. Though complaining of pain in the joint, reduction was readily obtained without ether by extension and counter-extension, while pressure was made over the radius. The limb was put up in an angular splint, and in a few days passive motion was used. He left the hospital in a few weeks, regaining perfect use of the limb.

Case II.—Dislocation of radius and ulna outward.

On the afternoon of December 14, 1879, I saw, in consultation with Dr. J. H. Dew, a little girl seven years of age, who, on the morning of the same day, while climbing up to a closet, had fallen a distance of about four feet, and received a dislocation of her right elbow. We could gather no information as to what part of the limb had been struck in the fall. Upon examination, the limb was found a little flexed, with the forearm somewhat pronated. Scarcely any swelling had as yet occurred, and it was at once perceived that she had dislocated both bones completely outward, the olecranon resting upon the external condyle, and drawn upward about half an inch; the head of the radius could be distinctly felt under the integument, which was not drawn so tightly over it as in the preceding case; the undue prominence of the internal condyle was strikingly marked. Under ether flexion and extension were readily made, and the forearm felt as if but loosely attached to the arm. The reduction was readily accomplished (under ether) by the doctor making strong traction upon the forearm while I made counter-extension from the arm. Continuing this extension for a few moments flexion was made at the same time pressure was exerted against the radius, and the bones glided into position. Careful examination was made for fracture, but none detected.

Case III.—Dislocation of the ulna backward, and the radius forward and outward (left arm).

This case I saw in consultation with Dr. Whybrew eighteen days after the receipt of injury. The patient was a strong muscular man 28 years of age, by occupation a fireman on board of a steamboat. The accident was produced by a fall down-stairs while intoxicated, and, regarding the case as one of "sprained joint," had not placed himself under medical care till the day before I saw him. The limb was somewhat swollen, and there was some inclination of the tissues around the upper portion of the radius. The limb was nearly straight, and would admit of but slight flexion. Upon examination it was readily perceived that the ulna was dislocated backward while the radius was found thrown upward, resting upon the outer portion of the humerus. I could not positively determine as to the presence of a fracture, though felt disposed to the belief that a portion of the external condyle had been chipped off; though no bony crepitus could be elicited. Considerable pain was experienced upon pressure over the head of the radius, and

on the external condyle; this led me to the idea of fracture.

Under ether I made many and prolonged attempts at reduction, using extension and counterextension, strong pressure upon the head of the radius, flexion, rotation and supination, with the result of reducing the ulna into position, but only partially restoring the radius to place. Flexion finally could be made at a little more than right angles, the head of the radius gliding more to the outer side of the humerus. At one time we had so far reduced it as nearly to cause the finger to touch the shoulder, but it did not remain so. The final result of this case I am unable to relate, as three days after the reduction Dr. Whybrew informs me that he, the patient, left the city, and he has not heard from him since.

CASE IV.—DISLOCATION OF THE RADIUS AND ULNA BACKWARD, WITH SECONDARY DISLOCATION OF THE RADIUS BACKWARD AND OUTWARD, OCCURRING SHORTLY AFTER THE REDUCTION OF BOTH BONES.

In January, 1876, a man, 37 years of age, entered my service at Bellevue Hospital with the history of having received a fall two weeks before, and injured his right elbow. What portion of the body struck the ground he could not tell. No treatment had been resorted to, except the use of some liniment. Upon examination it was apparent that both radius and ulna were dislocated backward. Under ether reduction was readily effected; and the limb confined by a bandage. On the evening of the same day, while dressing the limb, my house-surgeon, Dr. Kearny, thought he noticed that the radius had slipped out of place again. I found that this had indeed occurred, and that the bone was projecting backward and outward, caused no doubt by his violence while coming from under the influence of ether. So great was the swelling which followed, that evaporating lotions were applied till February 5th. Eight days after the first reduction, when at my clinic, I reduced the bone by extension and pressure made against the head of the radius downward and forward, then flexing the limb. There was no fracture detected; the limb was confined in position, and when the patient left the hospital he could move the joint freely.

These four cases of dislocation are of interest owing to the infrequency with which they have been met with. In regard to the first two varieties, I have had the opportunity of seeing four examples. The first case was that of a lad 17 years of age, in the wards of one of my colleagues at Bellevue Hospital, whose case was reported in the MEDICAL RECORD for October 9, 1875; another was an old dislocation in a man that I saw through the courtesy of Dr. Frank H. Hamilton. It will be noticed that three of these cases occurred in quite young subjects, and I believe this has been the case in the majority of those reported. Hitherto, all the recorded cases, according to Hamilton (Fractures and Dislocations, 1875), have been but thirteen in number.

In reference to the third case we find no mention made of this variety of dislocation in some of our standard text-books. According to Gross, not more than five or six cases have been reported. Erichsen mentions having met with two cases in hospital practice. To produce such a dislocation, the limb would appear to have been flexed and the forearm severely twisted when the force of the fall was received upon the palm.

The fourth case, where the radius becomes displaced backward, is no doubt usually attended with fracture, but in this case I feel sure that such was not the case. That considerable laceration of the ligaments would be necessary to permit of such an injury without fracture is evident upon reflecting how strongly this joint is protected. That such injury to ligaments in this case existed, I think was evident, and I feel convinced that the displacement was due to violence of the patient in coming from the influence of ether and the means employed to restrain him.

A CASE OF CONDYLOTOMY FOR GENU VALGUM.

By CHARLES T. POORE, M.D.,

SURGEON TO SAINT MARY'S FREE HOSPITAL FOR CHILDREN, NEW YORK.

MICHAEL R——, aged four and a half, was admitted into Saint Mary's Free Hospital for Children, October, 1879, with genu valgum to a marked degree, in both of his limbs. Patient is a rachitic child. The internal condyles are on a lower plane than the external. There is no abnormal curvature of the femur or tibia, nor is there any hypertrophy of its inner head. He has worn braces, but has derived no benefit from them. There is some talipes valgus.

Figure 1 is from a photograph taken at the time of admission.

FIG. 1.

November 1st.—Patient etherized, and the following operation was done on the right limb. The leg being strongly flexed, a longitudinal incision was made two and a half inches above, and on a line with the tubercle, for the insertion of the tendon of the adductor magnus, directly down to the bone, so as to strike on the ridge of bone running from the linea aspera to the internal condyle. Into this incision a chisel three-eighths of an inch wide was passed, and rotated so as to be at right angles to the long axis of the femur, and the condyle was divided in a direction downward, outward, and backward, in a line corresponding to one drawn from the symphysis pubis to a point midway between the two condyles, when the limbs are parallel. The direction of the chisel was from time to time changed forward and backward, in order that the condyle might be freely separated from the femur, as far as the articular

cartilage. The limb was then extended, and the tibia bent inward, toward the median line, until the internal condyle was felt to yield and slide up, so that its lower border was on same plane with that of the external, the long axis of the tibia corresponding to that of the femur. During the chiselling, there was quite free venous hemorrhage.

A long splint, consisting of two pieces of zinc, one moulded to the thigh, and the other to the leg, united by an iron bar bent outward at the knee-joint, so as to leave that uncovered and provided with a foot-piece, was applied on the outer side of the limb, so as to hold it in an extended and corrected position. Lister's gauze was applied over the wound, secured by a tightly-applied bandage. Patient put to bed, and ice applied over the joint.

November 7th.—There has been no elevation of temperature, nor any pain since the operation. Dressings removed, and the limb put up in a plaster-of-Paris splint. Wound reduced to a small ulcer. There has been no suppuration.

November 8th.—A similar operation was done on the left femur. Hemorrhage during the section was about the same as at the first operation.

November 9th.—There has been considerable oozing coming through the dressings, so that they had to be removed last evening, and a compress, secured with a tightly-applied bandage, was put on. There

Fig. 2.

has been no further oozing. Temperature at 3 P.M. to-day suddenly rose to 102°, but by 6 o'clock had gone back to normal. There was no pain nor anything about the wound to account for this elevation.

November 14th.—Splint removed from the left limb, and plaster-of-Paris bandage applied. Wound about healed.

November 19th.—Plaster splint removed from the right limb; union seems firm.

December 3d.—Plaster splint removed from the left limb. The correction seems perfect. The malleoli can be made to touch. There is no stiffness about either joint.

December 13th.—Patient walking about. The right limb still showed some deformity. I do not think that I corrected enough; it is also half an inch longer than the left.

January, 1880.—Patient to-day went home.

Figure 2 is from a photograph taken two months after he began to use his limbs.

These operations were not done antiseptically, but a solution of carbolic acid was freely used during the performance.

The above described operation is known as Reeves's, the section is made in the same line as Ogston's, but there is not as much disturbance of the soft parts, and the joint is not necessarily entered by the cutting instrument.

There was not the slightest effusion or pain in either joint after the operation.

There is considerable projection of the internal condyle inward, due, I think, to its increased breadth, from the sliding up of the wedged-shaped section, the base being downward.

The limbs have not changed since the operation; the patient has been using them for more than two months. In standing he can place the malleoli in contact.

A NEW OPERATION FOR SYMBLEPHARON AND PERMANENT CURE.

By E. MACFARLAN, M.D.,

SURGEON TO EYE AND EAR DEPARTMENT, HARLEM DISPENSARY, N. Y.

H. O——, a butcher, while dressing a sheep received a wound which penetrated through the left lower lid, about four lines from the inner canthus, into the outer half of the eyeball, and embraced the retrotarsal fold. The resulting symblepharon was very extensive, consequently the movements of the eyeball were very limited. This annoying condition, together with the consciousness of an unsightly deformity, rendered my patient very desirous to have an operation performed which might afford some hope of a permanent cure.

Now, the experience of all engaged in ophthalmic surgery is, that symblepharon is one of the most intractable affections that we are called upon to treat; and the reason why is, because of the difficulty to prevent reunion after an attempted removal of the symblepharon. To accomplish a cure, then, it is obvious that the opposing surfaces must be kept from contact during the treatment.

Some surgeons claim good results from mechanical contrivances placed between the lids. Others, more recently, have had undoubted success by transplantation. But the case in hand suggested to my mind the possibility of effecting a permanent cure by a new and very simple method, of which the following is a description: 1. The symblepharon was dissected from the lid, retrotarsal fold, and the globe. 2. A pin was passed through the integument of the lower lid, about midway between the tarsal margin and the edge of the orbit. 3. A second pin was passed through the integument of the cheek, about three-quarters of an inch below the edge of the orbit. (Only a small portion of either pin was allowed to project from the point of entrance and exit.) 4. A thread of coarse ligature silk was now passed over the projecting ends of the lid pin, and the lid drawn down by it to the extent of producing a temporary ectropium. The thread was then twisted around both pins several times in the figure-of-eight form, and tied securely below the cheek pin.

Remarks.—By the use of the pins it will be seen an enforced separation of the lid from the eyeball was maintained, by which I was enabled to watch and control undue granulation, and thereby facilitate conjunctival repair.

At the expiration of ten days I found the repair

complete, and removed the pins; and when the pin-wounds were healed, discharged my patient permanently cured of symblepharon. I saw him several months afterward, and had the satisfaction to learn that there never had been the slightest indication of a return of the affection.

Progress of Medical Science.

Treatment of Prurigo with Pilocarpine.—Prof. Simon, of Breslau, states that he has employed pilocarpin in a number of cases of prurigo, and has found it to be a very efficient remedy for that disease. In cases of adults he usually administered the drug subcutaneously, injecting every day fifteen minims of a two per cent. solution, or a little over a third of a grain at a dose. Internally, he generally used a syrup of jaborandi, prepared by percolating fifteen ounces of boiling water through three ounces of jaborandi leaves, and adding eighteen ounces of sugar to the filtrate. Of this syrup the dose for adults was one or two tablespoonfuls, for large children two teaspoonfuls, and for small children one teaspoonful. After the administration of the drug, the patient was always wrapped up in blankets, and left in them for two or three hours. Under this treatment, even patients suffering from advanced forms of prurigo usually began at once to sweat profusely, and a favorable effect on the malady was almost always manifested rapidly. The intense itching was greatly relieved or even stopped entirely by the first dose; this effect was evidently due to the softening effect of the perspiration on the hard, dry skin. The exanthem rapidly diminished, the fresh spots of prurigo were much less numerous, and as the patients scratched themselves very little or not at all, the skin became progressively smoother. The swelling of the inguinal glands went down without any local treatment, and the deep furrows in the skin caused by the growth of the papillæ became shallower. Complete involution was obtained in mild cases in about fourteen days, and in severe cases in three or four weeks. In very inveterate cases the treatment had to be continued somewhat longer. In a large number of his cases, Prof. Simon used nothing but the pilocarpine or jaborandi, but in others he combined local treatment with it, and was convinced that the cure was hastened thereby. The local treatment in these last cases consisted in smearing the affected parts with tar, or painting them with oleum rusci, followed by a warm bath of two or three hours' duration. Relapses occurred in the cases treated in the above manner, but they seemed to be milder than usual.

Hebra, as is well known, regards prurigo as an incurable disease. Prof. Simon, on the other hand, believes that it is only incurable after the patients have passed a certain age, which he places at four years. Before that age he believes that even advanced cases of the disease can often be cured. He speaks of the difficulty of diagnosticating the affection from urticaria papulosa, a very common and readily curable complaint of early childhood. Prurigo is an exceedingly rare disease in America and England, but in Vienna, Breslau, and Berlin it forms about two per cent. of all cases of skin diseases treated in the hospitals.

Schnitz has reported two cases in which a growth of hair appeared on bald spots after the administration of pilocarpine, and Scholler states that he has seen the hair reproduced on a bald spot on a rabbit after two injections of pilocarpine. One of Simon's cases of prurigo was affected also with alopecia areata; the prurigo was cured, but the alopecia was entirely unaffected by the treatment. Simon reports, however, one case of complete alopecia in which he administered twenty injections of pilocarpine. The patient, a woman, thirty years of age, had absolutely lost all the hair of the body, even to the wool-hair, but a few weeks after the treatment the wool hair had reappeared over the entire body. In psoriasis and eczema, pilocarpine proved utterly useless, and in one case of pemphigus foliaceus, in which it was tried, it acted very unsatisfactorily, producing redness and tenderness of the skin. *Berliner klin. Wochen.*, No. 49, 1879.

Surgical Statistics.—Mr. Spence's article on Surgical Statistics, which appeared in the *British Medical Journal*, January 24th, and of which an abstract was published in the Record of March 13th, has called forth two replies in the *Journal* of February 14th, one from Mr. Lister himself, the other from Mr. W. Watson Cheyne, Surgical Registrar, King's College Hospital. Mr. Lister criticises the period from which Mr. Spence's statistics were derived, as long antedating his own, and suggests that the choice may possibly have been prompted by the exceptionally fortunate results obtained during that period. That these results were exceptionally fortunate, Mr. Spence's later statistics are adduced to prove. The statistics published by Mr. Lister were taken from 1871, when the antiseptic spray and gauze were first introduced, to 1877, when Mr. Lister left the Edinburgh Infirmary, and included all the cases operated upon in that institution in which strict antiseptic precautions were used. In Mr. Spence's tables the amputations mentioned were performed for disease; with the exception of three successful secondary operations, all the other secondary, and all the primary operations were excluded. Mr. Lister then analyzes the individual cases, and, comparing the similar ones in each table, claims a better showing for his own than for Mr. Spence's. In reply to the question relating to tumors of the breast, Mr. Lister says that during this period (1871 to 1877) he had thirty-eight such cases, of which two died, one from erysipelas, and one from septicæmia; but these were the only two deaths from blood-poisoning occurring among the operations performed antiseptically. The septicæmia was attributed to a failure in the proper application of the dressing, due to the carelessness of one of the assistants. But this one instance of septicæmia and not a single example of pyæmia occurred among 553 major operations, a multitude of minor ones, and a host of injuries varying from trivial ones, to compound fractures and wounds of joints.

The period selected by Mr. Spence was objected to by Mr. Cheyne for the same reasons as adduced by Mr. Lister, and a record of Mr. Spence's practice from October, 1872, to April, 1878, with the exception of the winter of 1874–75, was compiled by Mr. Cheyne from various publications in different journals. As this period corresponds in greater part to that during which Mr. Lister's results were obtained, it gives, it is claimed, a much fairer comparison. During this period there were 331 major operations with 58 deaths, a percentage mortality of 17.5, as contrasted with Mr. Lister's percentage mortality of

5.1. Much difficulty is experienced in attempting to ascertain the number of deaths from blood-poisoning: in 16 out of the 58 deaths, the cause is not definitely stated; of the remaining 42, 8 deaths are assigned to septic poisoning, while in several causes such as the following are mentioned: "irritative fever," "unhealthy action of the wound," "diarrhœa and vomiting" (in several cases), "uræmia, although without any marked symptoms," "hemorrhage, generally in the form of uncontrollable oozing," etc. The major amputations during these years numbered 97, of which 25 died, a percentage mortality of 25.7, as contrasted with Mr. Lister's mortality of 11.25 per cent. The claimed injustice of comparing the results of amputation for disease with those obtained in primary and secondary amputations is well illustrated in this table, in which Mr. Spence has a percentage mortality in primary amputations of 43.7; in secondary, 33.3. Although no definite information on the subject of blood-poisoning can be gathered from Mr. Spence's writings, a valuable record is published in Dr. Braidwood's work on *Pyæmia*, of the cases of this disease occurring in Mr. Spence's wards during the years 1859–65. It must be remembered that the 63 cases of major amputations for disease given in Mr. Spence's table occurred during the years 1860, 1861, 1862, and but one of these died of pyæmia. Dr. Braidwood's record of the six years, 1859–65, shows that of 227 major operations there were 43 deaths from pyæmia alone, leaving out of consideration septicæmia, erysipelas, and other forms of blood-poisoning. Of 44 primary amputations during these six years, 9 died of pyæmia, or 20.4 per cent.; of 113 secondary amputations (by which he probably means amputations for disease, and secondary to injury) 22 died from pyæmia, or 19.4 per cent. It is possible that many of these cases occurred immediately after the series of cases tabulated by Mr. Spence, but Mr. Cheyne expresses surprise that, if such were the case, these 63 cases alone should be produced and no mention made of many cases of pyæmia occurring immediately afterward.

Antiseptics in Cataract Extraction.—Following the example of Graefe, Mr. Simeon Snell has been testing the effects of antiseptics in ophthalmic surgery. The plan carried out by him in removing cataracts is the same as that recommended by Graefe. Shortly before the time of operation the eye was carefully washed out with a two per cent. carbolic solution, the eye then closed, and the external surface washed, and a sponge wetted with the carbolic solution laid over the closed eye until the operation. The instruments used were placed in absolute alcohol for a while, and then dried on lint or cotton-wool; the sponges were soaked in the carbolized solution. After the operation a pad of lint, wetted in a four per cent. solution of boracic acid, was applied, and covered with a piece of fine gutta-percha tissue; a simple pad of lint was applied over the sound eye, and a closely-fitting bandage was placed over all. Graefe changed the dressings every twenty-four hours, but Snell kept the lint constantly soaked by dropping the boracic acid solution upon it, and did not change the dressings for four days. The dressings were renewed for three or four days, and then discarded for a shade. Considerable pain was experienced on washing the eye, and the conjunctiva was so deeply injected and chemosed as to interfere seriously with the operation. On this account thymol was substituted for carbolic acid in the last operation, and these unfavorable results were entirely avoided. Eight cases have so far been treated in this manner, and the immediate results left little to be desired. Graefe stated that "the percentage of failures in the cases so treated was one and four-sevenths, while it varied from five to six in the cases operated upon before the adoption of the antiseptic plan." In an article on this subject, however, in a recent number of Knapp's *Archives of Ophthalmology and Otology*, the reviewer states that, "on a visit to Halle, he was authorized by the writer (Graefe) to add to his report that the recent results of extractions performed and treated in the same manner have been less favorable than before, showing an inordinate number of disastrous suppurative processes."—*The British Medical Journal*, Feb. 14, 1880.

On the Therapeutic Action of the Cortex Quebracho.—In No. 19 of the *Berliner klin. Wochen.* for 1879, Penzoldt published a very interesting paper on quebracho, in which he stated that he had obtained most striking and unexpected effects from that drug in different forms of dyspnœa, but that as a febrifuge it had failed in his hands. Dr. Berthold, of Dresden, has since then experimented with the remedy in fifteen cases of intense dyspnœa, with the following results: In a severe case of asthma convulsorum a teaspoonful of the tincture of quebracho gave speedy relief, and three doses at hourly intervals effected a complete cure. In a case of emphysema with asthma a teaspoonful of the tincture was administered every three hours; the dyspnœa did not yield until the third day, but the asthmatic attack was decidedly shortened by the remedy. In a case of emphysema complicated with pulmonary catarrh and pregnancy, the respiration fell in one day from forty-eight to thirty-two under the use of quebracho. In a case of pleurisy, and one of chronic pulmonary catarrh, the remedy caused no improvement at all in the dyspnœa. In a case of mitral insufficiency and stenosis, and in two cases of fatty heart, it exerted a very decided palliative action on the dyspnœa. Of six cases of phthisis with great dyspnœa, only two obtained any relief from the quebracho, but in these two cases the relief was very marked. In one of these cases of phthisis the diarrhœa stopped after the first dose of the remedy. Dr. Berthold has found the alcoholic extract of quebracho, that is, the resinous residue which remains after digestion, and is of course only soluble in alcohol, to be a very excellent remedy for diarrhœa. He administered it in five cases of acute and chronic intestinal catarrh with very prompt effect.

Dr. Picot, of Carlsruhe, writes that he tried the tincture of quebracho in three cases of dyspnœa, due respectively to catarrhal pneumonia, bronchial asthma, and valvular lesion, with very satisfactory effects. He also used it himself while doing some mountain climbing on his vacation, and found that it enabled him to climb with much greater ease and comfort—for instance, a certain expedition caused the pulse to rise from sixty-four to ninety-four, and the respiration from sixteen to forty-two, with a very unpleasant sensation of shortness of breath, but after a dose of half an ounce of the tincture the same ascent only caused the pulse to rise to eighty and the respiration to thirty. A corpulent man and a nervous woman, who suffered greatly from dyspnœa after moderately rapid walking on level ground, were able to take the same amount of exertion without distress after a dose of from two and a half to four drachms of quebracho. —*Berl. klin. Wochen.*, Dec. 29, 1879.

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PAY-HOSPITALS, AND A POINT IN HOSPITAL MANAGEMENT.

In a work on pay-hospitals of the world,* recently written by Henry C. Burdett, the question of having in our hospitals rooms and wards where patients may be treated at certain fixed rates is discussed in a very thorough manner, with reference to securing improvements in this direction. In the matter of paying patients in hospitals, England is behind all other European countries. America will rank next above England. There is a particular need of examining the subject in these countries, therefore. The lack of paying wards in hospitals, on the one hand, encourages habits of improvidence and pauperism, and, on the other, it often prevents many people in moderate circumstances, as well as strangers or travellers, obtaining the best medical care and suitable surroundings. Nothing can be more unfortunate than to be sick in a boarding-house, apartment, or a hotel. Such a fate, however, is a necessity in England, and to a less extent in this country. The result of the present system is that only the very rich or the very poor get the best medical and surgical treatment.

The French long ago recognized the necessity of hospitals conducted on paying principles, and their *Maisons de Santé* have been very useful and successful institutions. As described by Mr. Burnett, they are in part under municipal and in part under private control. Their general arrangement is much like that of ordinary hospitals. There is a resident physician, with assistants, and a corps of visiting physicians and surgeons. The rooms and wards are divided generally into three grades, which differ in cost, and correspondingly in the matter of food and accommodation. The prices of board vary from seventy-five cents to several dollars a day. The patient can call in consultation any member of the visiting staffs of the Parisian hospitals, provided the resident physician is willing.

Similar institutions to the *Maisons de Santé* exist in Italy, Spain, and other European countries. They everywhere seem to supply a want and to be well patronized. In Germany it is customary for eminent medical men to own and conduct private hospitals of this kind, and more or less to advertise their institutions. Thus, Professor Volkmann, of Halle, has five of these "clinics," and over the door of each of them hangs his sign. This custom does not seem to be abused in Germany.

In our own country we have plenty of hospitals where the sick can go and be operated on or receive medical treatment, paying a respectable sum for the same. But with us, if a patient goes to a pay-ward he must of course be treated by the visiting staff; so that, if he had previously been under the care of one doctor, a change must be made. This is evidently unpleasant for the doctor, and it may be disagreeable to the patient. Then, on the other hand, the money paid by private patients all goes to the hospital, and none to the visiting staff. This is in many cases unfair. The money thus paid goes, of course, to the support of the indigent patients. But that part of it which is properly due to the visiting staff for professional services becomes virtually a contribution of that staff to the support of the hospital, which may be more than justice should demand.

In view of this state of affairs it has been suggested by Dr. Pront, of Brooklyn, that pay-patients in hospitals give the portion left, after paying for their board and accommodations, to such member of the visiting staff as they may elect, or even to an outside physician if they choose.

In regard to such a plan, we believe that it will not be practicable to any great extent in our present hospitals, since a good many of them need the money that pay-patients contribute. Neither would the plan of allowing pay-patients to call in outsiders be at all likely to succeed with most of our hospitals as now managed. A conflict with the various medical and executive authorities would be almost unavoidable if the system were introduced to any great extent. Our hospitals were not built, nor was their system of management organized, for such a plan.

Nevertheless, we recognize very strongly the need of *Maisons de Sante*—of places where physicians can send their patients, assured that they can have comfortable surroundings and careful nursing, and where the physician can follow his patient, and continue his course of treatment. Private institutions of this kind would undoubtedly thrive, and, if under responsible control, would be a great boon to the community. Their success has indeed been assured in this country, as shown by the Carney Hospital, near Boston, by the history of the old Washington City Infirmary, and by several other institutions which have more or less fully adopted this form of the pay-hospital system.

* PAY HOSPITALS AND PAY-WARDS THROUGHOUT THE WORLD. By Henry C. Burdett. London: J. & A. Churchill. 1879.

POST-GRADUATE STUDY AND THE NEW YORK ACADEMY OF MEDICINE.

In all of the New York medical schools a considerable proportion of the matriculates are doctors of medicine. They come on to New York after a few years of country practice, perhaps, desiring to break up the routine into which they have fallen; they wish to pick up the latest ideas in medicine and surgery, and to refurbish their therapeutic armory. The number of graduates engaged in this kind of study shows how much the need is felt of post-graduate instruction, and it was a wise and timely thought on the part of Dr. Yale to make this the text of his anniversary address before the New York Academy of Medicine. The rapid growth of this institution in numbers, its high professional standing, the ability of its members, and the excellent facilities afforded by its hall, all naturally suggested that it should lend its hand toward meeting this desire for post-graduate study and promoting the instruction of the profession in general.

The first and the simplest thing to do would be to institute a course of lectures. These should have a character much higher than that of the ordinary didactic lecture, or than the papers ordinarily read before medical societies. There should be kept in view the special object of the instruction of the general practitioner, as well as the promulgation of valuable original observations, and the earnest advocacy of whatever might tend to professional advancement.

It does not need argument to show the wisdom of establishing such a course. The Academy has members whose work in this direction would reflect the highest credit upon itself and the profession. It is unfortunate that in a city like New York we have not already had such courses established. The Harveian, Gulstonian, Lumleian, and other lecture courses delivered in London form some of the most valuable of the annual contributions to medicine, and are the very backbone of the London weekly journals.

Money is only needed in order that equally good courses be established here. We hope that an energetic movement to secure the necessary means may soon be inaugurated.

PROVIDENT DISPENSARIES IN LONDON.

The provident dispensary movement in London has lately received fresh impetus from the report of the Provisional Committee, appointed last June to arrange a plan for introducing it generally into the city. This committee, which embraced representatives of hospitals, dispensaries, friendly societies, charity organizations, and the profession in general, point out the well-known defects in the present dispensary and club systems. As a substitute, the plan they propose is not materially different from that of the provident dispensaries already established. It provides, however, for all the members of poor families, and it allows each family to select its own physician out of the dispensary medical staff. Provision for nursing, hospital treatment, and midwifery attendance is also made.

The committee say that one million of the people of London annually receive medical charity. They assume that one-half of these can become members of provident dispensaries; and it is thought that the establishment of fifty of such institutions throughout the city will furnish opportunities for all.

The club system of medical relief is now quite an extensive one, but it is unsatisfactory, because the medical attendance in this case does not include the whole family. It is believed that many of the clubs will reorganize on the provident system, and thus give it a great impetus.

The committee say that these dispensaries cannot prosper, if the just claims of the medical men on whose active exertions they depend, are not satisfied; and there ought, therefore, to be no uncertainty as to their fair remuneration. A proper care for preventing the abuse of this system is also recommended.

Altogether, the committee make a very good showing for the provident dispensary system, and there is a prospect that it will be introduced quite extensively into the English metropolis.

MEDICAL STUDENTS' CLUBS.

It is the complaint of the English medical student that he has but three places of resort—the college, the boarding-house, and the beer saloon. Taking this fact as the text, a correspondent of *The Students' Journal* writes quite bitterly of the neglect which the college authorities show toward the medical student, in every particular except that of his studies. No intercourse between pupil and teacher is cultivated; no provision for social intercourse and mutual help among the students themselves is made. In fact, they are left entirely to themselves, with no check from the faculty, until some fatal breach of discipline is committed, when the authorities arouse themselves and rusticate or expel the offenders.

This is the condition in most of the English medical schools, and there is something very similar to it in those of this country. We shall watch, therefore, with much interest, the discussion which is now going on in reference to securing a better state of affairs. Very little has been done, as yet, but in London a beginning is being made by the formation of Medical Club Unions. The purpose of these is to strengthen the influence of the medical students, and to promote unity and good-feeling among them. Whether they will accomplish any good must depend largely on their mode of organization and the spirit in which they are conducted. If the medical facul-

ties co-operate, or if the newly formed clubs teach these faculties to show a care for the students which is more paternal and not so exclusively didactic, as at present a great benefit will surely be secured. The medical student has strong social cravings, and he is at a time of life when these may easily lead him to acquiring bad habits and a low tone of thought. It is for the good of his future profession, as well as of himself, therefore, that he be watched and helped a little. We hope that the movement for the better care of the medical student may prove a successful one.

ECONOMY IN THE ADMINISTRATION OF THE PUBLIC CHARITIES.

A special meeting was held last week by the State Board of Charities to consider the possibility of reducing the expenses for charities. Fifty persons, representing twelve institutions of the city, were present. Mr. Theodore B. Bronson was made chairman. He stated that in 1865 the city appropriated for the Department of Public Charities and Correction $988,450; in 1880 the amount was $1,348,383. In addition to this the city appropriated $996,257 for various private institutions. Adding $342,573, the amount of the excise fund, we have a total of about $2,600,000, to be spent in 1880 on the city's dependent and criminal classes. This is at the rate of about $2.50 for each inhabitant of the city. In 1865 the total amount was $1,125,000, or about $1.50 per head. The increase is a striking one, and naturally provokes attention and alarm. Mr. Bronson called on the representatives of the various societies to give their views. All the representatives who responded deplored the facts as stated, but were positive that no retrenchment could be made in their own particular institution without great damage to the best interests of the city and of humanity. Mrs. Lowell protested against the incorporation of any more charitable societies, and thought that there were some in existence already which ought to be suppressed.

It was finally moved and voted that a committee be appointed, consisting of one member from each society, to consider the abuses of the per capita system. The meeting and discussion thus recorded were very timely, and it is only to be regretted that some more promising result was not effected by it. The appointment of an unwieldy committee of twelve, some of them from institutions which may themselves need reforming, does not give great encouragement. We hope for the best, however. This charity, which was once thought to be the divinest of virtues, seems to be becoming the genius of municipal pauperization.

A PHRENOLOGICAL SUPERINTENDENT.

We find a simplicity which is almost cherubic in the announcement by the superintendent of the Morristown Insane Asylum of his now matured views on the physiology of the brain. There are no doubts in his mind as to what is what in respect to this subject. Others may allow their energies to be wasted and their faculties blighted by modern experimental studies; but the distinguished alienist of New Jersey rises above this, and puts his trust in Dr Gall and George Combe.

The noble and neglected science of phrenology has captivated the mind of the superintendent. He sees in it a solution of all the problems of mental physiology and therapeutics, a deliverance from the crude work of modern neurologists, and a grand justification against the charge that asylum superintendents are not men of scientific education and training.

The trustees of the asylum receive the superintendent's statements with respect, and praise him for his erudition.

We believe that the Morristown Insane Asylum is a well-conducted institution, and is not much affected practically by the scientific vagaries of its superintendent; still, it is remarkable that a gentleman whose physiological views of the brain are based on the exploded theories of a past generation, should be at its head.

Reviews and Notices of Books.

How to Work with the Microscope. By Lionel S. Beale, F.R.S., etc. Fifth Edition. London: Harrison, Pall Mall. Philadelphia: Lindsay & Blakiston, 1880. 8vo, pp. 518.

The title of this work sufficiently indicates the scope of its author. From the appearance of the first edition in 1856 until the present, students of microscopy have looked upon the book as a trustworthy and practical guide in every variety of microscopical manipulation. As the science has expanded, and as its application has extended to the different departments of art, so has the work before us; and its fifth edition, which comprises a work of over five hundred pages, with hundreds of elegant illustrations, can be said to be fully up to date in all essential particulars. None better than the beginner can appreciate the difficulty of using his microscope properly and obtaining from it the best possible results, and none better than himself will appreciate the practical value of the several chapters that treat of the details of working the instrument. From a knowledge of the construction of the microscope, he is led to learn its use in the examination of different objects, the method of preparing the latter temporarily and permanently, the most approved methods of micro-photography, the best manner of making sections, of using injections, of staining tissues, of analyzing vegetable and animal tissues, and of employing micro-spectroscopy.

A distinguishing feature of the work is the large number of illustrations that it contains. By this means the reader has constantly before him methods of manipulation, forms of instruments, and arrangement of apparatus which it would be impossible to

describe to such advantage in the text. Even the most trivial points are illustrated—such, for instance, as the placing of microscopical covers in position, the dissection of insects under water with the arrangement of the magnifying power, etc. The remarks of the author on the use of the higher powers are particularly valuable to the advanced student as coming from one who has given the subject much practical attention, and who from extended experience is able to speak with authority. Altogether the work is the most complete one of its kind in any language, and is well calculated to supply the needs not only of the beginner, but the more advanced student. It is published in its usual unexceptionable style.

Transactions of the American Medical Association. Vol. XXX. Phila. 1879. 8vo, pp. 1028.

The volume recording the transactions of the last meeting of the American Medical Association is of the usual size and contains the usual number of papers. As a volume, it is not as interesting as some of its predecessors. The contents are as a whole not of that practical character which would make the work a valuable and useful one for the general practitioner. A greater part is given up to the papers of specialists, which are generally of a character that are of interest mainly to experts in the respective branches. The eye and the ear are particularly well represented; also, gynecology, skin disease, and lastly the treatment of spinal disease by the plaster-of-Paris jacket. The paper on the latter subject has its usual profusion of illustrations and occupies its usual number of pages. If this subject were entirely new, it would redeem the ordinary dulness of the volume. The papers on State Medicine are dry and to the last degree uninteresting to any save practical hygienists and members of health boards. The address of the president is on a very odd subject, and is treated in an oddly abstruse manner. The reader who plunges into its reading without due preparation, may be likened to the unthinking horse that rushes into battle. If at the end of the first half dozen pages he succeeds in mastering the situation, he can take courage and analyze the mysteries of life and death, of man's relation to animate and inanimate nature, and in the end he may congratulate himself that he has gained that true philosophy of our being which few are permitted to understand. The addresses on Practice of Medicine and Surgery are interesting and instructive; so also are the papers by Prof. Post of New York, Dr. Campbell of Augusta, Ga., Turnipseed of Columbia, S. C., and Marcy of Cambridge, Mass. The prize essay by Dr. McLane Hamilton is also a very creditable production, and presents the subject of primary and secondary degeneration of the spinal cord in a very instructive and practical light.

Notes of Hospital Practice. Part I. Philadelphia Hospitals. Selected and arranged by Samuel M. Miller, M.D. Philadelphia. 1879. 8vo, 137 pp.

The author has presented in a very practical form the views of most of the physicians and surgeons actively engaged in hospital practice in Philadelphia at the present time. Brief histories of cases of interest are given, together with the diagnosis and best modes of treatment for each. It is a book which will prove of great service both to the student and busy practitioner of medicine, containing as it does, in a condensed form, the latest opinions of men who are prominent specialists.

Paracentesis of the Pericardium. A Consideration of the Surgical Treatment of Pericardial Effusions. By John B. Roberts. With illustrations. Philadelphia: J. B. Lippincott & Co. 1880. 8vo, pp. 100.

After giving in detail the causes, symptoms, physical signs, diagnosis, and prognosis of pericardial effusions, the author discusses the various forms of treatment. In entering upon the subject of paracentesis, he goes fully into the history of the operation, together with the anatomy of the parts concerned, and the cases suitable for operation. He advocates the use of Potain's aspirator, because the vessel can be emptied of air before the trocar is introduced, and no shaking is produced by pumping after the pericardium has been perforated. After mentioning, and taking into consideration the various places adopted by various operators as the point of puncture, he comes to the conclusion that the fifth intercostal space, nearer the sixth than the fifth rib, to avoid wounding the intercostal artery, and from two to two and a quarter inches from the median line, is better than a point nearer the nipple, as in the latter situation the puncture may be made beyond the limits of the pericardium. Several minor details are entered into, after which follows a chapter on dangers to be encountered in the operation, treatment of complications, a table of cases, and the results of the operation.

Second Annual Report of the State Board of Health of the State of Connecticut, for the Fiscal Year ending November 30, 1879, with the Registration Report, 1878, relating to Returns of Births, Marriages, Deaths, and Divorces. Printed by order of the Legislature. Hartford. 1880. 8vo, pp. 84.

This report contains many suggestions to those interested in the matter of public health, a subject which at the present time is occupying the minds of so many of our public men. Those engaged in the formation of boards of health would do well to read the paper on the "Formation of Modern Boards of Health," by Professor W. H. Brewer. A brief resumé is given by Dr. O. Brown, of cases of "sickness from impure ice" occurring in the town of Washington. An able article is furnished by Prof. C. A. Lindsley, on "Sanitary and Unsanitary Conditions of the Soil," as also one on the much discussed subject of "School Hygiene," by Dr. C. W. Chamberlain. Other papers of value are published, and a report of the births, marriages, deaths, and divorces for 1878, together with the registration laws, concludes the volume.

Transactions of the American Ophthalmological Society. Fifteenth Annual Meeting, Newport, 1879. New York: Published by the Society. 1879. 8vo, pp. 106.

As usual, these "Transactions" contain much that is of interest in almost every branch of the specialty of ophthalmology. The first paper is by Dr. H. Knapp, "On the Operation of some Kinds of Complicated Cataract," who also furnishes another on "Tumor of the Optic Nerve." Dr. Haskett Derby contributes a valuable statistical article on "Influence on the Refraction of Four Years of College Life," in which some interesting facts are narrated. Next follows a paper on "Dacryocystitis in Nursing Infants," by C. J. Kipp. Dr. Noyes reports three cases of plastic operations at the inner canthus. The other papers

are by Drs. Webster, R. Dyer, G. C. Harlan, W. F. Norris, and others. There are some very good woodcuts presented in connection with the various papers, and the "Transactions" for 1879 compares favorably with those for other years.

TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY. Twelfth Annual Meeting, Newport, R. I., July 24, 1879. Vol. II., Part 3. Boston: A. Williams & Co. 1879. 8vo, pp. 80.

A "Report on the Progress of Otology," from July 1, 1878, to July 1, 1879, by Drs. Vermyne and Webster, contains in a condensed form all that has been written in this department during the time mentioned. A digest of all the more important subjects is furnished, and is followed by a bibliography of the year. The papers are: a "Case of Ménière's Disease following Parotitis," by Dr. H. D. Noyes; "Contribution to the Pathology of the Temporal," by Dr. T. R. Pooley, also articles by Drs. Knapp, C. J. Blake, and Lucian Howe. This small volume is presented to the profession in octavo size, containing eighty pages of reading matter, and will, no doubt, be read with interest by those who wish to familiarize themselves with the latest advances in otology.

A TREATISE ON ORAL DEFORMITIES AS A BRANCH OF MECHANICAL SURGERY. By NORMAN W. KINGSLEY, M.D.S., D.D.S., President of the Board of Censors of the State of New York, late Dean of the New York College of Dentistry, etc., etc.; with over 350 Illustrations. New York: D. Appleton & Co. 1880. 8vo, pp. 541.

A CASUAL glance at this work might impress the reader with the idea that its contents were of more practical value to the dentist than to the general practitioner or surgeon. But, it is by no means a mere work on dentistry, although a practical knowledge of the latter art seems to be essential to the carrying out of the author's views regarding the correction of the different varieties of oral deformities of which he treats. In other words, the operations about the mouth for the corrections of the various deformities named are mechanical rather than in a strictly surgical sense operative.

The first part of the work considers the irregularities of the teeth, their causes, their association with general and special physical defects, notably with that of idiocy; their diagnosis, and lastly their treatment by mechanical means. Under the latter heading various apparatus are described. Appropriately following this chapter is one on the best methods of taking impressions of the mouth, while as a conclusion for this part of the work is an interesting recital of cases from practice, illustrating the principles of treatment previously laid down by the author.

But the really interesting part of the work, the one which is full of originality and which impresses the reader with the faithfulness of the author's work, the correctness of his observations, and the painstaking character of his conclusions, is that which treats of palatine defects. For a number of years our author has worked in this department with singular success, and now for the first time presents to his professional brethren the detailed results of such labors. It would be impossible in a reasonable space to follow him step by step through the different phases of the discussion of this part of his subject, and we must content ourselves with some general statements which will serve to give the reader an idea of the conclusions upon which his methods of practice are based. We may start with the idea that the failure of staphylorrhaphy is to be explained by the fact that a complete closure of the post-nasal orifice is not, as a rule, possible. This closure is absolutely necessary in order to eliminate the nasal intonation so common with patients suffering from the malformation in question. The author's observations to prove the part which the tongue and velum take in the articulation of the English vowels and consonants are of great physiological and pathological interest, and his conclusions seem to be legitimate and safe. What appears to be difficult to obtain by surgical operation in the way of closing the post-nasal opening is comparatively easy by artificial apparatus. The opening in the roof of the mouth in cleft palate is closed by a suitable plate, but to the latter is attached a soft rubber palate which is so adapted as to be acted upon by the rudimentary palatine muscles and in such a manner as to close the post-nasal opening at will. In most cases a special training is required, but the results of the latter are sometimes quite astonishing. In some instances the correction of the nasal twang is so complete that the patient's deformity may be effectually concealed. The cases from practice illustrating this point are of striking and practical interest.

We would be doing injustice to the work did not we make particular reference to the masterly chapter on the treatment of fractures of the lower jaw. The whole subject is so thoroughly studied that nothing is left to be desired by any surgeon who wishes to treat these fractures intelligently and successfully. The work as a whole bears marks of originality in every section, and impresses the reader with the painstaking efforts of the author to get at the truth and apply it in an ingenious and practical way to the wants of the general practitioner, the surgeon, and the dentist.

THE SPECTROSCOPE IN MEDICINE. By CHARLES A. MACMUNN, B.A., M.D., University of Dublin. With three Chromo-lithographic Plates of Physiological and Pathological Spectra, and thirteen Woodcuts. Philadelphia: Lindsay & Blakiston. 1880.

DR. MACMUNN states in his preface that "the spectroscope seems likely to be of almost as great use in medicine as it has already proved in terrestrial, solar, and stellar chemistry." This prediction may or may not come to be fulfilled. We will not attempt to dispute the possibility of such an event. For the present, however, even after having read the author's two hundred and seventy-nine pages of subject-matter, we fail to see the great practical usefulness of the spectroscope in medicine. There can be no question that some facts of physiological chemistry are easily demonstrable by this instrument. Hence, we believe that no well regulated laboratory should be without one. We further admit the importance of the spectroscope in certain pathological tests, and therefore the scientific investigator should be supplied with an instrument of this kind. But the practitioner will not, for these reasons, add a new ponderous apparatus, with various accessories, to his daily increasing stock of medical contrivances. Rather than provide himself with an expensive instrument which requires skilled practice for profitable manipulation, he will forego some of the undeniable advantages possessed by this method. We would not be understood to disparage the work done by the author. He has certainly with much industry collected all the main facts pertaining to his subject. Those who are interested in the subject will doubtless welcome this little volume as a convenient guide

to the spectroscopic examination of normal and pathological products.

THE REGIONAL TEMPERATURE OF THE HEAD. By J. S. LOMBARD, M.D. London: H. K. Lewis.

DR. LOMBARD is the adapter of a well-known physical form of mensuration to medical uses which involves the use of thermo-electric piles and the deflecting galvanometer. His apparatus, described several years ago, has been used by Hammond in this country for the detection of difference of temperature in the head. Broca, Gray, Schiff, and two or three Italian investigators have worked in the same direction—with surface thermometers, however. The work before us shows great patience and labor, and embodies a series of experiments made to determine the rise of temperature when the intellectual or emotional activity of the brain is excited. The variations are extremely delicate—so delicate, in fact, as to raise a doubt as to their practical value and the part played by outside influences; and for this reason we should be disposed to place more reliance upon the results obtained by the thermometer, which gives the indices of much more conspicuous changes. The book is one of great interest, however, and comes to us at a time most fortunate. Cerebral thermometry is in its infancy, and any aid in the development of such an important study is acceptable.

TRANSACTIONS OF THE VERMONT MEDICAL SOCIETY FOR 1879.

THE addresses of Dr. G. B. Bullard, President, opposing the germ theory, and of Dr. L. W. Bingham, Vice-President, favoring it, are readable articles, though they present nothing new. The latter details the armamentarium of Lister, and writes from the basis of Lister's and Volkmann's researches. This plan receives his attention at the Fletcher Hospital, at Burlington. Three of the ten articles of the volume are upon this mooted question. Dr. Draper, Superintendent of the Insane Asylum at Brattleboro, writes somewhat authoritatively on hysteria in insanity. Though an occasional writer, he is known as a careful observer. In the few positive cases of hysteria in the male, which he has watched, all of which were accompanied by the globus, masturbation or excessive venery was found to be the immediate precursor.

E. S. Peck, of New York, sends a paper on the etiology and treatment of chronic purulent inflammation of the middle ear. A table of 2,500 ear diseases is adduced, of which 600 are cases of chronic purulent discharge. The general practitioner, to whom scarlet fever ear-cases go quite as often as to the aurist, is cautioned against the promise to mothers and guardians, as dangerous as it is untrue, that such a discharge "will get well of itself." The danger of granulation tissue proceeding from the superior wall of the middle ear, and some unusual successes with the artificial drum-heads of Toynbee and Blake are detailed.

Dr. A. B. Somers, in a paper on the sympathetic eclampsia of children, notes some of the truisms of Alonzo Clark, Vogel, and Bouchut, and groups briefly a few instances of this infantile symptom, which were promptly relieved by gum-lancing, cathartics, and, finally, iodide and bromide of potassium. Dr. F. W. Goodell writes on irritable ulcer of the rectum, and Dr. C. W. B. Kidder on the surgical treatment of hemorrhoids.

The Secretary wisely devotes but ten pages to official business, while ninety are given up to selected papers. It occurs to us that the Vermont State Society does not bring out the talent of its best-known practitioners, and this volume is exceptionally small. For the year 1880, Professor S. W. Thayer is President, and Dr. S. S. Clark, St. Albans, continues as Secretary.

TRANSACTIONS OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION. Vol. XXXII. 1879.

THE first half of this volume is occupied with addresses and poems to the memory of those physicians who died in the epidemic of 1878. This recognition of them is eminently appropriate and just. Eighteen physicians of Mississippi died during that summer, victims of the pestilence, and brief notices of their life and character are given. The poem by Dr. J. Dickson Bruns is a little crude and halting in its rhythm, but it is full of pathos, and, on the whole, has genuine merit.

The last half of the book is occupied with papers by the members of the society. These are, for the most part, short and on practical subjects. The "Spas of Mississippi," by Dr. L. Phares, gives a good account of the numerous mineral springs of that State. One of the longest contributions is by Dr. M. S. Craft, on "Surgical Diseases of the Rectum." A history of Intentional Anæsthesia is related by Dr. J. M. Taylor, and the credit of priority is given to Dr. Crawford W. Long. The notoriety and prominence which Southern physicians have been giving to Dr. C. Long in this matter does injustice, we believe, to Dr. Morton. "Ligation of the Femoral Artery," "Climato-Therapy of Phthisis," "New Remedies," "The Use of the Obstetric Forceps," and several short articles on surgical subjects, complete the book.

We cannot but criticise the taste of the printer in putting a double border around a scientific publication. This smacks too much of children's picture-books.

The officers of the society for 1880 are: President, Dr. E. P. Sale; four Vice-Presidents; Recording Secretary, Dr. Mort. Johnson, of Jackson; Corresponding Secretary, Dr. M. Craft, Jackson; Treasurer, Dr. E. K. Harrington.

TRANSACTIONS OF THE ILLINOIS STATE MEDICAL SOCIETY. Twenty-ninth Anniversary. May, 1879.

IN his opening address, the President, Dr. E. P. Cook, discusses a number of prominent medical topics. The proposed law for the commitment of the insane, resembling that of New York, is heartily endorsed, the adoption of the entire system is recommended, and remedies for the evils in medical education suggested.

A report on surgery is made by Dr. Jno. E. Owens. This includes a synopsis of the various additions to medical science during the past year, and is a valuable document.

A paper on "The Treatment of Fractures of the Femur" is contributed by Dr. C. Truesdale. Dr. T. has used for a number of years a triple inclined plane. With it he claims that shortening is not the rule, but the exception.

Dr. H. T. Gill, in a paper on the "Surgical Treatment of Croup," gives statistics of 106 cases of croup in which tracheotomy was performed; of these 28 recovered.

A report on obstetrics and one upon practical medicine and upon gynecology, contain much interesting matter. A paper entitled "The Chiropodist" has been already extensively published.

Dr. E. Bowyer read an article on "The Compensa-

tion of Medical Witnesses." In this he claimed that physicians have a moral and legal right to compensation as expert witnesses in coroner's cases and in court.

Reports on ophthalmology and otology complete the volume, which is above the average in the value of the matter it embodies.

Officers for 1880: President, Dr E. Dougalls, of Chicago; Secretary, Dr. T. D. Fitch; two vice presidents, treasurer, and assistant secretary.

TRANSACTIONS OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY. Fifteenth Annual Meeting, Newport, 1879.

THE contents of this pamphlet embrace twenty articles, most of them quite short and well selected. It is noticeable that one-half the contributions come from New York City. A paper by Dr. Hasket Derby, on the "Influence on Refraction of Four Years of College Life," is well worthy of attention. He shows from careful examinations of classes in Amherst College that the percentage of emmetropia on entrance is 50.8; on graduation four years later, 36. The percentage of hypermetropia on admission is 5, on graduation 13.2; that of *myopia*, on admission, 44.2; on graduation, 50.8.

A paper showing much research is by Dr Henry D. Noyes, on "Statistics of Extractions of Cataract by the Flap Operation and by Von Graefe's Method." From a comparison of over 10,000 cases of each kind he shows that the percentage of loss by the old flap operation was about 17; that by Von Graefe's operation, 6.52 per cent. He concludes that an average loss of 6 per cent. is what is to be expected in Graefe's method when done in the most skilful manner.

TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY. Twelfth Annual Meeting, Newport, 1879.

THESE transactions show the same prominence of New York City in the specialties as does the work of the Ophthalmological Society. Five out of the eight articles are by New York physicians. The report on the Progress of Otology, by Dr. J. J. B. Vermyne, of New Bedford, and Dr. D. Webster, of New York, is an admirable one. The articles are clear, concise, and exhaustive. Among the items of progress given are these: Dr. H. Knapp stated that over 6 per cent. of all cases of ear disease have had primary acute purulent inflammation of the middle ear; Politzer denies that his method of inflating the ear is liable to cause rupture of the drumhead; Von Tröltsch says that of the 38,489 deaf-mutes in Germany less than one-half are congenital, and that in one-fifth of the cases early treatment would have prevented the condition.

The other articles are: "A Case of Menière's Disease following Parotitis," by Dr. H. D. Noyes; a "Contribution to the Pathology of the Temporal Bone," by Dr. T. R. Pooley; a "Case of Trephining of the Mastoid in Acute Suppurative Otitis Media, with Rapid and Perfect Recovery," by Dr. H. Knapp; a "Case of Purulent Inflammation of the Middle Ear, with Facial Paralysis," by Dr. C. J. Blake; a "Case of Supernumerary Auricle," by Dr. H. Knapp; an article on the "Use of Permanganate of Potassa in Chronic Otorrhœa," by Dr. Lucien Howe.

OUTLINES OF THE PRACTICE OF MEDICINE, with Special Reference to the Prognosis and Treatment of Disease. With Appropriate Formulæ and Illustrations. By SAMUEL FENWICK, M.D. Philadelphia: Lindsay Blakiston. 1880.

DR. FENWICK is Lecturer on the Practice of Medicine at the London Hospital. He has also written a very excellent work on "Medical Diagnosis." He announces that the book before us is an attempt to remedy the present tendency in medical teaching, to adopt physical diagnosis as the basis for treatment, to the disparagement of those indications furnished by symptoms.

In carrying out this design, most of the space is devoted to therapeutics, etiological and symptomological. The subject is prefaced by two chapters on the general treatment of diseases. Very little exception can be taken to the suggestions and directions for treatment throughout the book, so far as they go. They are sensible, and evidently those of a man of experience. There is a very general neglect among medical teachers to give proper prominence to therapeutics; we can see that a book devoted expressly to this department, and written for students, may be of much service. This is all the good we can say of it, however. The book is too short, and the directions too brief and indefinite, to be of much value to the working practitioner, though helpful, perhaps, to students.

MINOR GYNECOLOGICAL OPERATIONS AND APPLIANCES, for the Use of Students. By J. HALLIDAY CROOM, M.B., etc. Edinburgh: E. & S. Livingstone. 8vo, pp. 106. 1879.

MR. CROOM divides his book into two parts: 1. Diagnostic, and 2. Therapeutic. Under these heads he gives directions regarding vaginal examinations, the use of specula, sounds, tents, etc.; also the methods of treating ordinary uterine affections. The book has several good illustrations, including some colored lithographs.

Correspondence.

LEPROSY IN JAPAN AND ITS TREATMENT WITH COPAIBA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Leprosy has undoubtedly existed in Japan from a very early period. Though more prevalent in certain districts, isolated cases are met with in all parts of the empire. Among medical men as well as the laity the general belief is in its hereditary transmission. So strongly is the whole mass of the people imbued with this notion that the most rigid scrutiny is instituted into the family history of both contracting parties before a marriage alliance is entered into. The effect has been to limit the prevalence of this horrible malady far more than any legal enactments such as are enforced in the Sandwich Islands could do. Having given considerable attention to the subject, and having had an opportunity of treating quite a large number of cases, I shall take an early opportunity to give a detailed account of my experience in its treatment.

At present I find the most effective remedy to be copaiba administered internally and by inunction. In the anæsthetic form of the disease, especially, it is a remedial agency of undoubted potency.

D. B. SIMMONS, M.D.

KEN HOSPITAL, YOKOHAMA, JAPAN,
January 24, 1880.

TESTING PEPSINE.

To the Editor of The Medical Record.

Dear Sir:—A new so-called method of testing pepsine has been circulated among the medical and pharmaceutical professions, based upon the precipitating power of certain neutral salts, wherein the bulk of matter precipitated is assumed to indicate the comparative pepsine strength of various saccharated and other pepsines.

I think this process is calculated to mislead, and is based upon erroneous data.

True pepsine has not been, and probably never will be, isolated, as I think it cannot exist except in combination with animal matter, by which it is absorbed, and held ready for action whenever conditions are suitable.

In support of this view, V. Wittich has found that fibrin is capable of absorbing pepsine, and that the latter cannot then be washed out with water; it becomes active, however, as soon as it is brought into contact with diluted hydrochloric acid, and the combination is dissolved, peptone formed, and pepsine set free (reproduced?).

Ebstein and Grutzner have since confirmed this, and O. Nasse also agrees to the views of V. Wittich, but is of the opinion that the combination of fibrin and pepsine is not of a mechanical, but of a chemical character. He has found that coagulated albumen is capable of fixing pancreatine and amylum ptyaline in the same manner (*Ph. Centr.*, No. 40, 1874, p. 330).

If this be the case, pepsine, pancreatine, and allied principles are obtained when precipitated by chloride of sodium, in combination with, probably, the hydrochloric acid of the chloride of sodium, chloride of sodium, and animal matter. The precipitated matter is not pepsine, but simply holds it in proportions, which may be great or small, the amount of precipitated matter being no indication of the amount of pepsine present.

The error, therefore, it appears to me, consists in viewing this precipitated matter as pepsine, when it is only a vehicle; and no test can be considered reliable unless it involves absolute digestion.

Respectfully,

R. W. Gardner.

170 William St., New York, March 4, 1880.

ASPHYXIA IN THE NEW-BORN.

To the Editor of The Medical Record.

Dear Sir:—In the Record for Dec. 20, 1879, I gave the history of a case of profound asphyxia of a new-born infant, and what I ventured to call a new method of treatment for such a condition. At the time of giving this case to the profession I had tried this method on but one subject, and as it is said to be difficult to found a dynasty on *one* subject, so it might seem that a single case of asphyxia was not sufficient to test the value of a new method of resuscitation. It might be said, however, that a *test* case —a case where all the ordinary methods have failed and the new method succeeds—*is* a sufficient trial of a new method, and at once places it among the novelties that have a *raison d'être*. But additional trials of this method, by myself and others, have proved beyond doubt the value of this method.

The great importance of this subject of resuscitation of the new-born has induced me to bring these additional cases to the notice of the profession through your columns.

The following case occurred at the Maternity Hospital on Blackwell's Island, and the notes were furnished me by permission of the house physician, Dr. Farnham:

Kate K——, 19 years of age, primipara, came into lying-in room at 1 A.M., Dec. 14, 1879, complaining of little "teasing" pains. These continued during the whole of December 14th, and until 9 A.M., December 15th, when they became "bearing down" in character. At 10 A.M., December 15th, vertex presenting, os uteri no larger than a two-cent piece, and had a firm, wiry edge. From this time on the os dilated very slowly indeed, notwithstanding that the woman had severe bearing-down pains, and that the different methods of treatment for rigid os were faithfully employed; so that the first stage of labor was not completed until 7.30 P.M., December 15th, forty-two hours after labor commenced. As the second stage progressed slowly, and the woman was much exhausted, forceps were applied when the head had been arrested at the outlet of the pelvis about fifteen minutes, and the child was delivered at 8.45 P.M. The cord was immediately tied and cut. The color of the child was a dirty white, with almost black eyelids, ears, nose, lips, fingers, toes, and scalp, and the child gave no sign of life. The child was slapped on hips and buttocks with hands, and alternately with dry towels and with towels wet with ice-water. It was dipped into the hot-water bath, and had cold water dashed over it. Meantime Marshall Hall's method of artificial respiration was being performed. These various means of resuscitation were tried for fully fifteen minutes without restoring the first sign of animation.

Dr. Forest's method of resuscitation was then resorted to. The child was placed in a small bath-tub containing three to four inches of hot water (temperature about 100° F.). The child was held in the sitting posture, with the left hand of operator so placed on the child's back that the thumb and first finger supported and controlled the child's head; the second and third fingers were disposed over upper part of child's back, while the little finger extended down to lower part of dorsal portion of the spine behind. The right hand grasped both hands of the child. The movements were begun by the right hand carrying both hands of the child up, over, and back of child's head; then the thumb and forefinger of left hand allowed the head to fall backward, while the left little finger pressed up the dorsal portion of spine, producing a slight opisthotonos. This was the movement of extension. The arms of the child were now lowered upon its chest so that the right hand of operator, still grasping the child's hands, supported front of child's head and thorax. The child's body was then bent forward, supported by one hand in front and one behind, and a sudden pressure downward was given it, producing the same effect in forcing air from the lungs that a sudden, forcible sitting-down would have.

The movement of extension was then commenced again as described above, *i. e.*, the thorax fully extended, the head thrown back, and the arms carried above child's head.

As no air was heard to enter or leave the child's lungs as yet, though perhaps the child's lips were a trifle brighter in color, when the next movement of extension was being made, the mouth of operator was applied to the mouth of the child, and the lungs forcibly inflated by the breath of the operator; then, as the next movement of flexion was being completed, a slight bubbling of air from child's mouth and nose

could be heard. Then the third and fourth movements of extension and flexion were made. During the fifth the child's lungs were again forcibly dilated by breath from the operator.

After the movements, as above described, were kept up for about twenty minutes (the temperature of water meantime having been kept up by additions of hot water), the child was able to perform some irregular, feeble movements of respiration, which gradually became stronger and more frequent. But, as expiration was somewhat feeble and impeded with mucus in the larynx, the child was allowed to remain some time longer in the hot water, while assistance was given to the child by squeezing the lower part of the thorax during each voluntary effort at expiration. The movements of extension and flexion were kept up altogether for about thirty-five minutes. An assistant, who held the hips of the child to keep them from sliding about on the bottom of the bath-tub, dashed the water over the child's chest whenever it was exposed during the movements of extension. The child the following day seemed strong and well.

The following cases occurred in my own practice, during December, 1879:

Mary P——, aged 28 years, mother of three children. Taken in labor December 11th, 6 A.M. When I saw her at 9 A.M., the os was fully dilated and the membranes unruptured, child presenting by the breech. The pains, which had been strong, seemed to die away after my arrival. After waiting an hour, I ruptured the membranes and disengaged one foot. The pains came on strongly, and the child was born as far as the shoulders. The back of the child was posterior, while the neck of the child was so rotated that the occiput was toward the mother's right acetabulum. Both arms were above the head, the anterior arm carried around behind the occiput, and firmly wedged there. The disengagement of the arms occasioned much delay, and meantime pulsations in the cord had entirely ceased. After some five minutes' efforts, by rotating the body of the child, as recommended by Dr. Barnes in his "Obstetric Operations," I succeeded in disengaging the arm, and then easily delivered the head.

The child, when born, was badly asphyxiated; the fœtal heart could be felt with difficulty; no pulsation in cord; no sign of reflex action when my finger was introduced into the larynx, and the color of the child was a bluish white.

I called for a wooden pail, filled nearly half full of water, at a temperature of about 110°, and placed the child in this in the sitting posture. Then I commenced artificial respiration, as described in the case narrated above, and still more fully in my previous article. As in all the cases, while performing the movement of extension, I frequently placed my lips to the child's mouth, and inflated its lungs with my breath. Then, at the next movement of flexion, and for a few movements thereafter, air could be heard bubbling from child's mouth and nose. After about fifteen minutes' persistent effort, the child gave occasional spasmodic gasps, which gradually became more and more frequent. It was more than an hour before respiration was fully established. The child made a good recovery.

Case III.—Mary W——, aged 26, had one child, which "came cross-birth," and was killed during delivery.

On examination, found the os fully dilated, membranes unruptured, and child presenting by right shoulder, dorso-anterior. Gave chloroform, and by external manipulation partly turned the child, and then, rupturing the membranes, easily seized the left foot. Some delay occurred during the delivery of the arms and head, and the child was asphyxiated when born. Ten minutes' efforts at resuscitation with the hot water bath, and artificial respiration with the child in the sitting posture, gave the first signs of returning animation. The child made a complete recovery.

These three cases, and the one mentioned in my previous article, would seem sufficient to test this method of resuscitation. In two of these cases all the ordinary methods were tried, and failed before this method I have described was tried at all. As I said in my previous article, the value of this method of resuscitation consists in combining the very best method of artificial respiration with the very best, and in these cases only practical, stimulant to the circulation, namely, the continuous hot water bath. The first fills the lungs with air, while the second sets the blood in active circulation, so that it may become aerated in the lungs, and then be carried on to stimulate the nerve-centres of respiration and circulation. In a slight case of asphyxia, where the heart can be felt beating strongly, the hot water is not indicated, as artificial respiration alone will be sufficient. But in other cases, where the cardiac pulsations are but feebly felt, if felt at all—where stimulants to excite reflex action, such as flagellations, hot and cold douches, etc., fail to arouse animation, then this method described above may be resorted to with a well-grounded hope of success.

W. E. Forest, M.D.

168 Spring Street.

ASPIRATION FOR STRANGULATED HERNIA.

PROBABLY THE FIRST CASE IN WHICH IT WAS TRIED.

To the Editor of the Medical Record.

Sir:—I think I have discovered the first case where the gut was aspirated for strangulated hernia. I was called a few weeks ago to a man who had some difficulty in wearing a truss. He told me the following story:

Twenty-eight years ago he was troubled by his rupture getting down and called in his family physician for relief. The rupture could not be reduced. He told the doctor that all that was necessary was to plung something in and let out the air. The doctor went home for some medicines, which was several miles away. While gone, he made an instrument, plunged it into the gut, the tumor collapsed, and he went into the field haying at once with no trouble. I put no confidence in the story (for the best of people will lie on such subjects) until he produced the instrument. I saw at once that it would be serviceable as an aspirating needle. It is at least novel and ingenious. He says he made it in this way: First made a conical hole in a hard board, took a common large-sized needle and held it in the centre, run in around it melted pewter, when cold filed it into shape.

He says that he plunged it into the gut about three-fourths of an inch, and was relieved at once. I have the instrument in my possession. This was done twenty-eight years ago. I think this man, though a farmer, has a good claim for priority in aspirating for strangulated hernia.

Respectfully,

James Oliver, M.D.

Athol, Mass., March 17, 1880.

A NEW CAUSE FOR TUBERCULOUS DISEASE.

To the Editor of The Medical Record.

Sir :—The etiology of disease is being studied with a thoroughness very commendable. To the imaginative mind it would appear to be possible that the fons and origo of every disease will eventually be known, and the necessary means for prevention will be taken in due course. Since the promulgation of the germ theory a new light has been thrown upon the pathway of enthusiastic investigating etiologists. With his olfactories alive for sewer-gas and his microscope adjusted for bacteria, his procrustean tendencies are more and more satisfied the farther he proceeds; just the same as a pathologist who has no other name for a morbid growth, and calls it a sarcoma, so the searcher for the cause of disease speaks of the disease germ, and no one cares to go farther. And who can fail to be impressed with the learned essays that are being scattered broadcast over the land, and in which are the diagrams of pipes, traps, and sewer-mains from which the dreadful gas is shown to escape in all possible directions by means of artistically twisted arrows finding their way into every undesirable place imaginable? Generally speaking, the householder who is not afraid of the bills of the man who has a practical knowledge of traps, waste-pipes, etc., can keep his mind easy regarding the fruitful cause of innumerable diseases. But, although sewer-gas may be considered as the germ producing element of our age, the grandparent of *all* the ills of advanced civilization, it appears that we have not yet arrived at the end of the chapter. From the present lookout it would seem that there is to be an infecting germ for every special disease, and each germ is to have its special medium of attack. The latest investigation bearing on this point has been made in reference to the cause of phthisis. According to a certain German savant, it seems to be proven that a fruitful cause of phthisis is the drinking of the milk of tuberculous cows. The germs of the disease presumably pass from the milk of the tuberculous animal into the stomach of the victim, and so on, until the air-vesicles are reached, and phthisis results. One strong proof of this is that ten per cent. of the cows kept in towns are said to be diseased, and that persons with consumptive tendencies are fond of milk. There is, consequently, one chance in ten that the healthy and unsuspecting drinker may come across the milk of one of these diseased cows, and that the statistics of phthisis will rise accordingly. There does not seem to be a reasonable doubt concerning the connection between cause and effect, at least according to the germ theory, and the only practical way out of the difficulty would appear to be either to make every dairyman an auscultator or recommend each consumer to look after his own cow. If both of these is impossible, we must calmly wait for the disease to develop itself, and then be ready with the benzoate of soda.

S.

New York.

TRACHEOTOMY WITHOUT THE TUBE.

To the Editor of The Medical Record.

Sir :—In No. 3 of the Record, Dr. Mitivier, of Holyoke, wishes some one to give a description of a new mode of performing tracheotomy without a canula, mentioned in some former number of this journal. I do not recollect the proposals made in that contribution, and the number is not at my hands; but, having in several instances met with the same disastrous difficulties in the after-treatment of tracheotomy as referred to by Dr. Mitivier, which sometimes annihilated the anticipated success when least expected, I have some time ago contrived a little instrument to supplant that dangerous apparatus, the tube, resolved to use it whenever an opportunity should offer. This occurred a few weeks ago, and, the result being a very satisfactory one as to the working of the instrument, I beg leave to give you in short the description of the case, the instrument, and the *modus operandi*.

The case was one of severe diphtheria in a boy of seven years. When I first saw him, about the third day of the disease, thick, coherent membranes covered the arches of the palate and the posterior wall of the pharynx; the uvula also thickly coated, being swollen to the size of a large bean, and resting on the epiglottis. This state of things, at the outset of the disease, I always consider very ominous, because the local process, in spite of the most energetic treatment, almost invariably enters the larynx, and causes either stenosis or septicæmia, or immigration of the bacteria into the veins or the substance of the heart, with its consequences. My local treatment consists for the last eleven years in the hourly application of a solution of an iodide of phenole after this formula:

℞. Acid. carbol. cryst.,
Spir. vini..... āā 5.00
Tr. iodi..... ..... 5.00
Aquæ dest.,
Glycerini..... āā 5.00
M.

This gives a clear, brown mixture, which does not act as a caustic, but merely as an antiseptic. I apply it with a small sponge on a wire probang, or with a forceps, in order to remove at the same time all loosened membranes, even down into the larynx when necessary. This treatment, when early commenced and combined with antipyretic measures, usually succeeds in arresting the local process within five to eight days, and the patients recover. In this case it failed, for, although the fever was reduced to a normal temperature from the second day, the epiglottis became involved on the third, sticking up like an immovable piece of bone, and on the seventh tracheotomy was performed on account of complete stenosis of the larynx. I had my instrument ready for trial, but, the boy being extremely weak, I hastened to open the trachea before taking up the deep fascia. This caused a little hemorrhage, and at the same time my assistant took out the hook from the trachea, so that I had to feel my way with the finger. There was no time to lose, and, not being sure of the facility of introducing the new instrument without seeing, I inserted a silver tube under the guidance of the finger. The boy rose at once, breathed perfectly freely, and felt extremely comfortable after the preceding agony. As the respiration remained quite free, I thought best to leave the tube in its place, reserving the experiment for some other occasion. The case went on quite favorably till the third day, when, under complete loss of appetite, vomiting of blackish mucus set in, accompanied by blood-colored, slimy discharges from the bowels. There was also a slight rising of pulse and temperature, but not the least obstruction of the air-passages. On the fourth day I left him quite satisfied, as the tem-

peratare and pulse seemed normal, but was summoned an hour afterward by a message that he had suddenly died from suffocation. I found him alive, but very prostrated. The mother had resolutely torn out the inner tube, and, through the elastic catheter, according to her instructions, removed some bloody mucus, when the boy began to breathe again. While I was still occupied with him, a new fit of suffocation came on. I introduced the catheter down to the bifurcation without the least resistance, aspirated some mucus, but without avail. The child struggled for air, but none entered through the open tube, and I thought he would die under my hands. Without hesitation I tore out the whole tube, which was followed by a large piece of membrane and free respiration. Now, this piece of membrane, about two inches long, had apparently plugged up the lower opening of the tube without being able to enter it or go through, so that it was without any feeling of resistance pushed down by the catheter, and then thrown up again and arrested by the margin of the tube. Had I not been present, the child could not have escaped death by suffocation.

I now inserted my instrument, which I had left there for all emergencies. It slipped in, as it were, by itself, and was retained firmly by the walls of the trachea and the upper and lower margin of the wound. The boy did not feel the change in the wound, there was no stretching, no sensation of pain or discomfort, but very free and easy breathing through the oval-shaped opening. The instrument was, besides, secured by a tape round the neck like the tube.

From this moment the respiration was never embarrassed again, small pieces of membrane and mucus being thrown out occasionally without the least difficulty. The night passed quietly, but in the morning I found the pulse 36 per minute, T. 36° Cels. (96.8° F.). Stimulants, injections of ether and liquid ammonia were of no avail to raise the heart's action, and the boy died in the evening, apparently of paralysis of the heart, respiration remaining free and easy to the last moment. Out of several hundred cases this was the first I saw die of paralysis of the heart. But a week later another boy of four years, without stenosis, and while the local process was rapidly healing, died on the ninth day under precisely the same symptoms.

The instrument is very simple, and easily understood by the diagram, which shows it in its natural

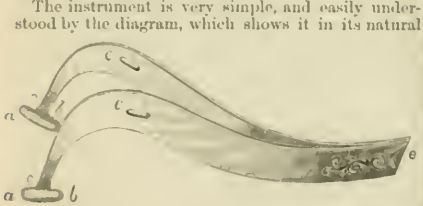


Fig. 1.

size (Fig. 1). It is made of German silver, and resembles a spring-forceps, the branches of which, about one millimetre in thickness, are just strong enough to hold the tracheal wound oval-shaped open, without stretching the tissues too forcibly. The two cross-bars, *a*, *b*, six millimetres long, are inside concave, outside convex, with rounded and flattened ends at *a* and *b*, so that, when the two branches meet, they form together a flattened, wedge-shaped little tube.

When the trachea is opened by a cut just as long as the cross-bar, or even a little longer, and still held by the hook, the "tracheo-diaspast" (as with a Greek term it might be called) is seized at *d* between thumb and index pressed together, so that the bars close, and the wedge-shaped end *a* introduced into the gaping wound, pushed upward until arrested at *c*, when the other end *b* will easily slip in at the lower edge of the wound. The wound forms then an oval opening; the bars are firmly held by pressing gently against the side-walls; but the whole instrument is to be pushed a very little downward, so that the two ends of the bars are covered by the upper and lower margin of the wound. Through the slot at *d* a tape goes round the neck from each side of the instrument to secure it still firmer in its place. The lower end *e* rests on the sternum.

The advantages of this instrument are:

1. The facility of introducing it.

2. The safety against the plugging-up of the trachea by membranes or clots, the passage being constantly free for anything to pass.

3. The easy access for medicated sprays, probangs, aspirators, etc. For cleansing the trachea, I had a sort of inverted brush constructed, a bunch of camel-hair fastened to a flexible wire, the hair turning upward (Fig. 2) so that it goes in very smoothly, while

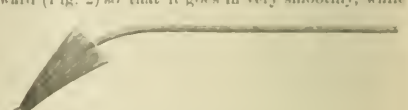


Fig. 2.

in withdrawing it the hair-brush spreads out to bring up anything loosely attached to the tracheal walls. It can also be saturated with medicated solutions.

To seize the trachea, I used a hook with a slit in its curvature (Fig. 3) for the direction of the scalpel

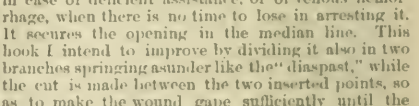


Fig. 3.

in case of deficient assistance, or of venous hemorrhage, when there is no time to lose in arresting it. It secures the opening in the median line. This hook I intend to improve by dividing it also in two branches springing asunder like the "diaspast," while the cut is made between the two inserted points, so as to make the wound gape sufficiently until the diaspast is inserted.

Respectfully yours,
C. G. Rolhe, M.D.

Altenburg, Germany, March, 1880.

Gratuitous Services to Clergymen.—In regard to charging the clergy for medical services, the following resolution was adopted at the meeting of the Allegan County, Mich., Medical Association, July 26, 1877:

"*Resolved*, That the custom of giving our professional services to clergymen and their families gratuitously is unjust to a large class of our patrons, whose incomes are much less than the average incomes of theirs, and that we will hereafter adopt the practice of charging them the same as others."

Obituary.

CHARLES A. ROBERTSON, M.D.,

ALBANY, N. Y.

Dr. Charles A. Robertson, the distinguished ophthalmologist of Albany, N. Y., died of empyema April 1, 1880, aged fifty-one years. He was born in Mobile, Alabama, in 1829, graduated at Harvard University in 1850, and from the Jefferson Medical College, Philadelphia, in 1853. After a residence of a year and a half abroad, studying with the masters of his specialty, he commenced practice in Boston, Mass., where he became connected with the Boston Eye Infirmary. He was surgeon of the 159th Regiment, N. Y. S. V., during the rebellion. After the war Dr. Robertson removed to Albany, where he resided the remainder of his life. He immediately took a foremost rank in his specialty, and patients came to him from every section of the State and country for advice and treatment. For many years he was surgeon in charge of diseases of the eye and ear at St. Peter's Hospital and the Albany Hospital, and also of the eye and ear relief located at Troy and Albany. For three years he was connected with the Troy Hospital, and was one of the founders of the American Ophthalmological Society and the American Otological Society. Dr. Robertson was a member of the State Medical Society and the Albany County Medical Society, of which he served as president two years ago. His literary abilities were of a high order, and he proved on many occasions that he was a man of deep learning in fields other than medicine and surgery.

His writings are quite numerous, and are of more than temporary value, among which are "Some Curious Reflex Phenomena after Injury of the Eye," July, 1870; "Review of Report of Last Illness of Dr. Alden March," January, 1870; "Medical Ethics and Medical Dissensions," January, 1871; "An Eye Case in the Courts," Dec., 1873; "Diagnosis of Diseases of the Eye," February, 1874; "Old Eyes Made New, or Injury from Eye Cups," February, 1875; and "Obituary of Dr. J. V. P. Quackenbush." Dr. Robertson was married in 1853 to Ellen A. Fuller, of Cambridge, Mass., but no children resulted from the union. He was elected president of the Young Men's Association in the spring of 1874, and served in that position throughout his term with ability and untiring energy, looking always to the best interests of that institution. He was also prominently connected with the Masonic fraternity, being a member of the Capital City Chapter, No. 242, R. A. M.; De Witt Clinton Council, No. 22, R. and S. M.; Temple Commandery, No. 2, K. T., and the several bodies of the Ancient and Accepted Scottish Rite. He was a man of strong social instincts, and, consequently, had hosts of warm friends. By his death Albany loses one of the brightest ornaments of the medical profession, and a public-spirited citizen. The remains will be taken to Boston, Mass., for interment in the Mount Auburn cemetery, where the family burial plot is situated.

The British Naval Medical Service has for some time needed reform. Recently a Royal Commission of seven has been appointed by the Government to investigate the matter, and report upon the measures needed.

New Instruments.

A NEW UTERINE DILATOR.

By A. ADY, M.D.,

WEST LIBERTY, IOWA.

In performing Ball's operation upon the flexed uterus, for the relief of that intractable form of dysmenorrhea which is due to those flexures and contraction of the cervix, I found the dilators in common use to work very imperfectly, and suggested to Messrs. Tiemann & Co. that they construct one that would have sufficient force with the blades opening parallel to each other, by the aid of two brackets moved by a screw through the handle. They soon manufactured the beautiful, neat, and efficient instrument represented by the above woodcut. I found instruments opening by one bracket, near the point, to be of sufficient force, but when open they were much wider at the point than anywhere else, and, in spite of the efforts of the operator, would ascend to the fundus of the uterus, and, in order to produce the proper dilatation, had to be dragged through the cervical canal by pulling upon the handle, a procedure that was likely to cause more or less laceration of the external os. Those wherein the brackets were set back some inches from the point, the blades would spring together at the point and slip out, unless they were serated, which increased the danger of laceration and unfitted the instrument for many other uses that the above dilator may be used for.

I have found it all that I could desire in dilating the flexed and contracted cervix uteri.

This instrument exerts great force with surprising ease to the operator. Those who have been in the habit of using any of the various dilators might easily produce laceration with this, but for the scale of figures on the handle, which give a sure index to the width the blades are opened.

A HANDY OPHTHALMOSCOPIC SCREEN.

By S. HEMINGWAY, M.D.,

EXAMINING PHYSICIAN TO DEPARTMENT OF CHARITIES AND CORRECTION, BELLEVUE HOSPITAL, NEW YORK.

The great difficulty experienced, at times, of making ophthalmoscopic examinations in hospital, and also in the physician's office, was the occasion of my devising the ophthalmoscopic screen, some years ago, while resident physician to the Epileptic and Paralytic Hospital, N. Y. In the former instance, if the patient is unable to leave the bed, the result of an examination with the ophthalmoscope, made after closing all the blinds in the ward, and with the unsteady light held by an assistant, is unsatisfactory to the physician and unpleasant to others in the ward;

and, in the latter instance, as a rule, the physician has no proper means, unless he is a specialist, of making these examinations, without the expense of a room, devoted expressly to the purpose. The expense of the screen is very small, and if used in an hospital it is adapted for the ordinary purposes of the ward screen when not used in making examinations. A common three-fold bed-screen of proper dimensions, with a removable slanting roof about six inches wide, a few yards of black paper muslin, and a lamp, complete the apparatus. The screen should be six and a half (6½) feet high; the middle fold six (6) feet wide, and the side folds each five (5) feet in width. The folds should each have three horizontal connecting pieces—at the top, centre, and near the bottom. For the arrangement of the light, the *middle* fold has a perpendicular piece of wood, of the same circumference as that composing the frame. This perpendicular piece *slides* between the top and centre cross-pieces, being neatly fastened to them by a loop of tin or iron at either end. This allows a sliding to the right or to the left. An ordinary lamp bracket, with a clamp that can be attached to the perpendicular piece, is made to slide up or down. The screen is made thus complex, in order to accommodate the light to any position—either up or down, to the right or to the left. The roof is made of light pine, painted black on its inner sides, and is used not only to protect the covering, but also to give solidity to the frame; it is not hinged to the frame, but is held in place by jaws formed of wood, fitting neatly at each corner, and they should hold the roof firmly in its place. The concluding portion is made from a few yards of black paper muslin, cut square at the top, to fit the roof, and long enough to fall to the floor, draping all four sides.

By hinging the connecting pieces, the frame can be folded lengthwise as well as sidewise, thus diminishing the space it would otherwise occupy when not in use. There is ample room for two persons inside the screen, and should protracted examinations be necessary, a valve-like opening for ventilation can be made by pasting a moderately large circular piece of pasteboard on the top of the muslin, and then by cutting the muslin *almost* completely around it. The adjustment of the screen around the head of a bed is so evident that it needs no explanation. The hospital bed being on an average three feet wide, there is an abundance of room.

I have the screen in use, and find it practicable, and also of great service in laryngoscopic and other examinations of a like nature.

115 East 39th Street, N. Y.

A GRADUATED PROBE.

By M. G. RAEFLE, M.D.,

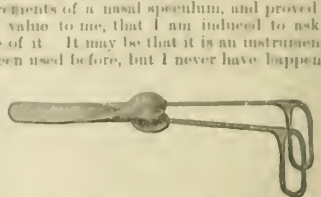
NEW YORK.

Feeling the necessity of procuring an instrument for the accurate measurement of wounds for medico-legal purposes, I made inquiries with that view, but found that no such instrument was made, with the exception of the ordinary rule. I therefore had constructed an instrument which seems to fulfil the indications I had in view. It is a simple probe, tipped like that of Nélaton, with flattened shank to enable graduation. It is made by Messrs. Tiemann & Co. of pliable material, and graduated to eight inches. Used as an ordinary probe, it enables the operator to measure at a glance the depth of a wound, an advantage which I hope will secure for it a permanent place in the armamentarium chirurgicum. It can be obtained at a very reasonable price.

A NEW NASAL SPECULUM.

By F. H. BOSWORTH, M.D.

This little instrument, which has been made for me by Mr. W. F. Ford, has fulfilled so perfectly all the requirements of a nasal speculum, and proved of so much value to me, that I am induced to ask your notice of it. It may be that it is an instrument that has been used before, but I never have happened to see it.



It is light and perfectly self retaining. It elevates the tip of the nose somewhat by the width of the blade, while at the same time it dilates the flexible portion of the nostril as far as the patient will tolerate it; and, finally, it is quite inexpensive.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from March 28 to April 3, 1880.

Brewer, J. W., Capt. and Asst.-Surgeon. The sick-leave granted him from A. G. O., Sept. 22, 1879, extended three months on surgeon's certificate of disability. S. O. 67. A. G. O., March 26, 1880.

DeWitt, C., Capt. and Asst.-Surgeon. To accompany Co. B., 20th Infy. from Fort Sidney, Neb., to Fort Niobrara, and report to the commanding officer thereat for duty. S. O. 26, Dept. of the Platte, March 26, 1880.

Moseley, E. B., Capt. and Asst.-Surgeon. Having relinquished remainder of leave of absence, relieved from duty with the Ute Expedition and assigned to duty at Fort Sidney, Neb. S. O. 26. C. S., Dept. of the Platte.

Medical Items and News.

Contagious Diseases — Weekly Statement. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 10, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small pox.	Yellow Fever.
March 27, 1880.	0	5	28	6	93	38	0	0
April 3, 1880.	0	11	38	6	79	45	0	0

A Medical Vacancy.— Mr. M. B. Van Duser, editor of the *Long Island Traveller*, Southold, L. I., informs us that Dr. A. L. Sweet has removed from Southold, "leaving a good opening for an active

and competent physician and surgeon." It is to be hoped that there are still some young medical men not already engaged in active practice, who may respond to this invitation.

Effect of Chloral on the Eyes.—Dr. F. P. Stevens, of this city, writes: "Noticing another communication in your last issue concerning the effect of chloral upon the eyes, I will state that a case of 'cephalalgia periodica' recently came under my care, in which chloral was used during the paroxysms. The patient afterward complaining of pain in the eyes, upon examination I found the conjunctivæ moderately congested, and the lids considerably swollen. This condition gradually improved, but had not entirely disappeared when last seen, seven days afterward. I will also add, that some time since a patient objected to the use of chloral because of the 'pain in the eyes which it always produced.'"

The Bill to Increase the Efficiency of the United States Marine Hospital Service, now before Congress, has been reported on favorably by the Committee. On March 31st it was referred to the Committee of the Whole. This bill provides for an increase in the number of surgeons and passed assistant and assistant surgeons, so that there shall be thirteen of the first and twenty-five of the second and third class. This, with about thirty acting assistant surgeons, makes the whole force number about seventy. The bill further provides that there shall be no appointments to the service without a previous competitive examination, and that the appointments shall be made by the President, by and with the advice and consent of the Senate. The whole tenor of the bill is toward promoting the efficiency of the service and elevating it entirely out of political influences. It has been very generally indorsed by medical organizations and prominent medical men. The prospects of its passage are very good.

Pleuro-Pneumonia.—The State Legislature has appropriated $35,000 to carry on the work of stamping out pleuro-pneumonia.

A Serious Accident occurred to Dr. C. H. H. Sayre, son of Dr. Lewis A. Sayre, on the 5th instant. While walking rapidly into the Gilsey House he turned suddenly to go back to his coupe. His foot slipped, and he fell over the iron fence into the area between the hotel and the sidewalk, twenty feet below. He struck upon his knees. He was picked up unconscious, and found to have sustained a compound comminuted fracture of the left femur, about eight inches above the knee. The bones protruded so extensively that the ends had to be sawed off before the parts could be brought into apposition. Counter openings were then made, drainage tubes passed through the thigh, and the whole fixed in plaster-of-Paris, after Markoe's method. The operation lasted more than two hours.

The injury is a very serious one, but Dr. Sayre has a vigorous constitution, and his chances are thereby much increased. Dr. Sayre has shown much enthusiasm, energy, and skill since he entered the profession, and his accident will be widely regretted.

Medical and Surgical History of the War.—A dispatch from Washington, dated April 5th, states that the joint resolution directing that 10,000 copies of the "Medical and Surgical History of the War of the Rebellion" be printed was indefinitely postponed by the Senate.

The Milwaukee Test of the Thirtieth Dilution.—In December, 1878, the Milwaukee Homœopathic Academy of Medicine undertook to have a series of scientific tests of the thirtieth dilution of certain remedies. Several drugs were carefully prepared, diluted, and potentized strictly after the Hahnemannian method. Ten vials were then taken, the diluted drug put in one and sugar pellets only in the other. Sets of ten vials thus prepared were sent off to various physicians with the request that they test them and try to discover, by proper experiments, which vial held the drug. There was not a hearty response to this praiseworthy attempt at scientific investigation. Among thirteen reports, however, which we find tabulated in the St. Louis *Clinical Review*, in but one case was the right vial hit upon by the experimenter. In this one case there were but five vials from which to choose. Yet men with very considerable claims to intelligence will doubtless go on for many years to come prescribing the thirtieth dilution.

Battey's Operation in New York.—The operation for removal of the ovaries was performed on a patient in the New York Lunatic Asylum a short time ago. The patient was a young woman who had been insane for some time, but who had of late been suffering from attacks of catalepsy. It was thought that the insanity, or at least the cataleptic attacks, were due to some irritation of the ovaries, and their removal was undertaken by Dr. Montrose A. Pallen. Not much change in these organs was found. The patient died at the end of the third day.

A daily paper of this city, which is building up a reputation for scurrilities, learned of this occurrence, and published a long article misrepresenting and condemning the whole thing. The operation was skilfully performed, and the indications for it were quite as full as they ever are.

Battey's operation is still *sub judice*, however, its dangers are great, its promise of good always uncertain, and there is something repugnant in its unsexing a human being. The greatest care is therefore needed in diagnosing the proper cases, if there are such, for the operation.

A few months ago this operation, or something very near it, was performed in Bellevue Hospital. The patient died. It is to be hoped that both these cases will be reported.

Meetings of State Medical Societies.—The following State Medical Societies hold or have held meetings this month: Tennessee State Medical Society, at Knoxville, April 6th; Mississippi State Medical Society, at Vicksburg, April 7th; Alabama State Medical Society, at Huntsville, April 13th; Medico-Chirurgical Faculty of Maryland, at Baltimore, April 13th; South Carolina State Medical Society, at Columbia, April 20th; California State Medical Society, at San Francisco, April 21st; Georgia State Medical Society, at Augusta, April 26th.

Physicians to make Examinations for Color-blindness.—A circular has just been issued by the Secretary of the Treasury modifying the regulations relating to the examinations for color-blindness. It states that in view of the expense and hardships likely to accrue to pilots living at points remote from stations of the Marine Hospital Service in visiting such stations for the purpose of being examined for color-blindness, the regulations are altered so as to permit pilots to be examined by any respectable resident physician. Such physician can sign a certificate to the fact that the pilot is (or is not) color-blind. This certificate will then be taken to the local steamboat inspector, who will make out the pilot's license, or not, according to its reading. This

arrangement, however, does not apply to the applicants for original licenses.

As there are probably more than four thousand pilots in various parts of the State, it may be well to remind physicians that the best method of making examinations is that of Holmgren. A pile of worsteds, of various colors and shades of the same color, is placed before the person to be examined. A skein of worsted of a particular color is then selected and placed on one side, the examinee is then required to pick out all the worsteds which have any shade of this particular color. If he does this successfully, another color is selected and matched in the same way. It is generally sufficient to match two colors. Green and red are the ones oftenest used.

Crystal Anniversary Dinner of the East River Medical Association of the City of New York.—The fifteenth annual dinner of this association took place at Delmonico's March 30, 1880, and was in every respect a successful occasion. Seventeen physicians, with their wives, were present.

The members of this association claim that those who take part with them in the trials of life should also share in its joys, and so from year to year they invite the wives of members as honored guests.

The following were the regular toasts of the evening, with their respective respondents: The College of Physicians and Surgeons, by Dr. D. E. McSweeney; The Bellevue Medical College, by Dr. Martin Burke; The University Medical College, by Dr. P. J. Lynch; The Academy of Medicine, by Dr. Truman Nichols; The County Medical Society, by Dr. R. A. Barry; The East River Medical Association, by Dr. N. S. Roberts; The Ladies, by Dr. J. R. Taylor; Our Anniversary, by Dr. Henry E. Crampton.

Each lady received, at the close of the dinner, a richly engraved toilet bottle of finest cut-glass, filled with cologne, as a memento of the occasion.

The following are the officers of the association: President, Dr. N. S. Roberts; Vice-Presidents, Drs. J. R. Taylor and T. C. Finnell; Recording Secretary, Dr. Wm. J. Purcell; Corresponding Secretary, Dr. Henry E. Crampton; Treasurer, Dr. Veranus Morse; Trustees, Drs. John Burke, Daniel E. McSweeney, Truman Nichols, Alex. S. Hunter, Robert A. Barry, Patrick J. Lynch.

Traumatic Achromatopsia.—At a recent meeting of the Paris Société de Chirurgie, a case of traumatic achromatopsia was related. A colonel, æt. 25, was wounded by a ball in the temporal region; he had all the symptoms of a fracture of the cranium, almost complete loss of memory, and achromatopsia, which lasted for two years. During this time he could distinguish only white, black, and gray. The faculty of distinguishing colors returned successively after the discharge of small splinters of bone by the primary wound.

Professor Pettenkofer, of the University of Munich, has been given the Bavarian Royal Order of the Crown, for his researches in chemical hygiene and allied subjects.

Sir Thomas Watson was eighty-eight years old on the 7th ult.

A New French Pharmacopeia.—The French Minister of Public Instruction has appointed a commission to prepare a new edition of the Codex, or official formulary of medicinal and pharmaceutical preparations. The last edition was issued in 1867. We notice on the commission the names of Bouchardat, Hayem, Regnault, Vulpian, and Milne-Edwards.

The Fish Cultural Conventions—The Propagation of Oysters—Nutritive Value of Fish.—A number of papers of considerable scientific interest were read before the American Fish Cultural Association, which met in this city on the 30th and 31st ult. Prominent among these was an article on the propagation of the oyster, by Dr W. K. Brook, of Johns Hopkins University. The manner in which this propagation takes place had never before, he said, been thoroughly understood. Through studies made by him last summer, however, great light was thrown upon the subject. He found that the American oysters do not breed their young in the shell, as has been supposed, and that consequently the eggs can be impregnated artificially. An average oyster contains from six to nine million eggs, and one of large size may contain fifty millions. The plan pursued in fertilizing these eggs is to chop the male and female oyster up together, thus the fluids are mixed and the impregnation is made complete. The process of development immediately begins and goes on so rapidly that a change may be noted every fifteen seconds. In a very few hours the embryo is sufficiently formed to swim in the water. The shells at first are very small, and are not adjacent to each other. They grow very rapidly, closing down over the sides, and finally unite and form the hinge. In the short time of twenty-four hours the young oyster is able to take food, and from three days to a week it attains perfect form. During its early life it is a swimming animal. The oyster is able to reproduce his species at the end of a year's growth, and it is marketable at the age of three years.

A paper was read by Professor W. O. Atwater, of Wesleyan University, giving the results of chemical analyses of different species of fish, made by him. The flesh of the cod, he said, was only one-sixteenth solid matter, while that of the salmon was one-third solid. A comparison of the analyses made showed that the mackerel contained 17 per cent. of solid matter—the rest being water; halibut (lean), 20.6, shad 35, salmon 33.5, and bluefish 21.9. Taking medium beef as a standard of 100, the nutritious value of lean beef would be 91; fat beef, 112; fat pork, 116; cow's milk, 24; butter, 124; fresh codfish, 68; shad, 99; salmon, 101; and dried cod, 346.

Ovariotomy in the Sixth Month of Pregnancy without Interruption to Gestation.—Dr. Alfred L. Galabin reports in the *British Medical Journal* a case of ovariotomy, performed in the sixth month of pregnancy. The tumor was very large, and held eight pints of fluid. The operation, which lasted one hour and a quarter, was performed antiseptically. The woman had an attack of phlegmasia dolens on the fifteenth day, but otherwise did well, and was delivered of her child at full term. This is the only case of its kind ever reported.

The Royal Victoria Hospital at Netley caught fire on the 4th ult., and had a narrow escape from total destruction. The fire was, however, extinguished, after it had injured several wards. Some of the books of the library and a number of pathological specimens were lost.

Mrs. Ernest Hart, in the *London Medical Record*, punctures the theories of Dr. Norris in regard to an invisible or third corpuscular element in the blood.

Veterinary Colleges.—Prof. A. Liautard informs us that there are three veterinary colleges which are authorized by law to issue diplomas, instead of one college, as stated in a previous issue.

Original Lectures.

A LECTURE ON COCCYGODYNIA.

Delivered in Chicago Medical College,

By EDWARD W. JENKS, M.D., LL.D.,

PROFESSOR OF MEDICAL AND SURGICAL DISEASES OF WOMEN, AND OF CLINICAL GYNECOLOGY.

(Reported for The Medical Record.)

Your attention will be directed to-day to a disease of which little has been written, and yet an affection which may be met with by every practising physician, although not very frequently by any. The disease is known as coccygodynia, coccyodynia, coccygalgia, or coccyalgia, and is an affection which seems to be peculiar to women. I am prompted to discuss the subject at some length now, as one of the patients of our clinic presents pronounced symptoms of the disease.

This patient has been treated for uterine disease—a not uncommon occurrence—as coccygodynia has many symptoms, which are frequently attributed to, or are sometimes associated with, either uterine or rectal disorders. She complains of pain in the coccyx when sitting upon a hard seat, that the pain is aggravated by coughing, sneezing, or defecation. A physical examination of the pelvis and pelvic organs having been made, we find all of her pains were aggravated in attempting to move the coccyx. The bones are not inflamed, necrosed, or apparently diseased in any way. When they are in a condition of perfect rest, there is no pain, but when moved by my hand, or by the contraction of muscles having a coccygeal attachment, or by change of posture, the sufferings are severe. Without dwelling at present upon this particular case, I desire to direct your attention to a general consideration of the disease designated as coccygodynia.

About twenty-five years ago, Sir James Y. Simpson directed the attention of the profession, in one of his public lectures, to a peculiar form of disease of the coccyx, which had heretofore had no place in medical nomenclature, which he called coccygodynia. Since then this affection has been known as coccygodynia, coccyodynia, coccygalgia, and coccyalgia.

The lectures of Simpson on diseases of women were begun twenty-two years ago, in the *London Medical Gazette and Times*, and continued to be published in that journal for the following two years.

These lectures were first published in the United States in 1863. In one of his clinical lectures, Prof. Simpson directed the attention of his class to a case of disease in the hospital, saying, "you will find, I believe, no description of it in any book." He further stated that he purposed subjecting the patient to an operation on account of her disease, such as, so far as he was aware, had never been performed before, or, as he qualified his remark, "at least under similar circumstances."

Although Simpson was the first to give a significant name to this affection, an American surgeon of distinction was the first to recognize its existence, as well as operate for it.

The late Dr. J. C. Nott, of New York, but then a resident of Mobile, Ala., was the first to describe this disease in 1844, under the name of "neuralgia of the coccyx." He published the history of two cases in the *New Orleans Medical Journal*, one in 1844, and the other later, in which the symptoms were fully given. In each case the bones of the coccyx were extirpated, resulting in the complete relief of the suffering patients.

In consequence, Dr. Nott received many complimentary letters from prominent members of the profession, among which was one from Professor Charles Meigs, of Philadelphia, who attached great importance to the pathology and treatment of the disease brought to notice by Dr. Nott. It is related that the latter gentleman, in return for the complimentary remarks by Prof. Meigs, sent to him the two extirpated bones, which were annually exhibited by Prof. Meigs to his classes, as long as he continued to lecture in Jefferson College.

It was strange, that notwithstanding the publicity given to the papers of Dr. Nott, they failed to attract sufficient notice to become known to Simpson, and until quite recently there has been no allusion to the disease under consideration in the majority of the text-books upon either surgery or diseases of women.

The name first given to the disorder by Simpson, of coccygodynia, was dropped for a time, and it was generally designated "coccyodynia." In the clinical lectures of Prof. Simpson, published in 1863, the term "coccyodynia" is employed, but in the posthumous work of Professor Simpson, edited by his nephew,* coccygodynia is the word again made use of. It has also been adopted into the nomenclature of Robert Barnes,† and many of the leading European gynecologists.

Coccygodynia is, etymologically, the correct term, rather than coccyodynia, coccygalgia, or coccyalgia, to designate this disease, the literal meaning of which is "pain in the coccyx." The name "coccygodynia" does not in the least define the pathology of the affection, it simply means "pain in the coccyx," as we speak of pleurodynia or mastodynia, to designate pain in the side or breast.

This disorder consists of a peculiar state of the coccyx, or the muscles attached to it, rendering their contraction and the movements of the bone very painful, presenting a condition analogous to vaginismus, or fissure of the anus, when disease causes painful contractions of the constrictor vaginæ, or sphincter ani muscles.

Coccygodynia is not infrequent, as many cases have been observed since the attention of the profession has been called to it by surgeons who had seen it previously without regarding it as a special disorder.

The most marked peculiarity of coccygodynia is the sensitiveness and pain about the coccyx when there is movement of the bone, or pressure upon it. Most of the patients affected by it are obliged to sit on one hip, or with one side resting upon a chair, and the dread of causing pain to the sensitive part makes them awkward and miserable; they dread sitting down, and the erect posture, putting some of the muscles upon the stretch, causes pain, and thus many patients, able neither to sit nor stand with comfort, become bedridden, and, as a consequence of the supersensitiveness of the coccygeal region, are compelled to so support their persons with cushions, that no pressure is allowed upon the painful part. A deep inspiration, coughing, sneezing, or any sudden muscular movement, causes excruciating pain. Again, there are other cases where the symptoms are

* Clinical Lectures on Diseases of Women, by Sir James Y. Simpson, Bart. Edited by Alexander R. Simpson, M.D., etc., New York, 1872.

† A Clinical History of the Medical and Surgical Diseases of Women, by Robert Barnes, M.D., etc. Philadelphia, 1878.

not so aggravated; some, when walking, will have pain with every step, while others can walk without any painful sensation. Others, again, feel most pain when the bowels are evacuated, or under any circumstances in which the sphincter, or levator ani, or the ischio-coccygeal muscles are called into action. The pain in some instances is not acute, whereas in others it becomes perfectly intolerable.

As the disease has symptoms which are frequently attributable to, or even sometimes associated with uterine or rectal disease, patients treated without obtaining the expected relief from their suffering and trouble despair of being cured, lose faith in therapeutics, and expect, but all in vain, that the menopause will end their chronic discomfort. In this connection the mention of the menopause is significant of one peculiarity of this disorder, and that is the fact that it seems to be found only in women. Men may have inflammation or necrosis of the coccyx from traumatic causes, being analogous to coccygodynia, but the disease under consideration, upon the authority of the limited number of observers, when induced by traumatism, seems to be from the class of injuries to which the pelves of women alone are liable. It is an important fact that the disease frequently manifests itself from other causes than traumatic, as many cases occur where there is not the least indication of injury, inflammation, or any form of disease of the bone itself.

Drs. Simpson and Nott have found the disease exclusively among women; and Thomas, Barnes, Courty, Nonat, Gallard, Le Blond, Sinéty, and other recent authors, include this disease in their several works upon gynecology.

We have the most convincing proof that the pain of this disease is due to the action of muscles attached to the coccyx, and this development is a necessary consequence of the greater size of the female pelvis. Then, again, as already stated, the pelves of women are subject to injuries to which the pelves of men are not liable. Dr. Simpson says that it is by no means very easy to understand why the action of particular muscles should be attended with the production of pain in particular instances. It may be that the disease is confined to the tendons of the muscles, or the portion of the coccyx from which they spring; or possibly, certain muscles, during their action, may bring the bone in contact with a supersensitive nerve or some inflamed structure, and thus give rise to the painful sensation.

Dr. Nott, in a paper which was published in the *American Journal of Obstetrics* (vol. i., No. 3), and read by him before the New York Obstetrical Society, on Coccygodynia, spoke of an article taken from Virchow's *Archives of Pathology* (1860, vol. xviii.), on the "Glandula Coccygea of Man," in which an account is given of a small gland, usually about the size of a hempseed, situated on the anterior surface of the end of the coccyx, connected with filaments of the ganglion impar of the sympathetic nerve, and with the small branches of the arteria sacralis media, between the levator ani and the posterior end of the sphincter externus. The gland is rich in nerves derived from the terminal branches of the sympathetic, which form microscopic net-works perforating the stroma, and are occasionally seen connected with ganglion cells. The writer says: "Although the function of the organ is at present unknown, it is already of great interest to the pathologist because it is not only the seat of the so-called coccodynia but also of the hygromata cystica perinealea." "Upon what observation," adds Dr. Nott, "rests the assertion that coccalgia or coccygodynia is caused by this gland I am not informed." Harnes also calls attention to the article just mentioned, and adds of the glandula coccygea: "When we consider its highly vascular and nervous elements and its position, we can hardly doubt that in some cases it may be the seat of coccygodynia." Other writers seem to attach no importance to the "glandula coccygea" as connected with this disorder.

It is well to bear in mind the anatomy of the parts, in order to have a better understanding not only of the phenomena attending the affection, but of its pathology. There are attached to the coccyx, the greater and lesser sacro-sciatic ligaments, the ischio-coccygeus, the sphincter ani, and levator ani muscles, and some of the fibres of the gluteï muscles.

Certain movements of the body, as defecation, rising from the sitting posture, walking, etc., bring these muscles into activity, and it is a well-known law that where any chronic irritation is brought to bear upon a muscle, there follows a tendency to spasmodic contraction, and acute pain is produced whenever an effort is made to elongate the contracted muscle.

I have alluded to the analogy between the disease under consideration and fissure of the anus and vaginismus. In these latter affections, irritation in the region of the muscles causes painful contractions.

I am convinced, from cases coming under my observation, that the characteristic pain of coccygodynia is, in some cases at least, produced in the same way. Now we know that we can overcome the spasmodic contraction of vaginismus and fissure of the anus, by anæsthetizing the subject. I observed in one case, very markedly, that an attempt to examine a grumbling coccyx without an anæsthetic, caused the point to be drawn forward, and the muscles attached were made very tense, the contraction being accompanied by excruciating pain. The administration of ether caused the muscles to be relaxed, when the coccyx became exceedingly movable. Now, there is no pain in vaginismus or in fissure of the anus, when there is perfect rest of the parts, neither is there in coccygodynia; but, owing to the number of muscles attached to the coccyx, a slight movement of the body produces pain, because the movement involves their action.

This leads me to speak of the causes of this disorder. It need not be due exclusively to any injuries received during the process of parturition, for we find it among those who have never borne children, and even in the young and unmarried. Among the assignable causes, other than child-bearing, are direct injury inflicted upon the coccyx by blows or falls, certain forms of exercise, as riding on horseback, or undue exercise of any kind, exposure to cold, and other climatic influences. I am myself convinced, from observation in several instances, that vaginismus, or fissure of the anus, or any source of irritation to the muscles included in the vaginal, perineal, or coccygeal region, may lead to this affection. Courty alludes to the local influence of cold in causing the disease, and cites one case caused by the patient's habit of sleeping in bed with her "seat applied against the wall." Simpson and Scanzoni have observed the disease many times where the subjects had recently been in childbed. In nine cases mentioned by Scanzoni, the coccygeal pain was manifest immediately after the application of forceps.

As previously mentioned, there are some symp-

toms attending coccygodynia similar to those found in uterine diseases, hence the danger among a class of diagnosticians who class all troubles of women under the one head of uterine disorders, of mistaking one for the other, and of attributing the sufferings, of which they complain, to the sympathetic pain of affections of the womb.

Barnes,* writing of coccygodynia, states positively that he has "traced it to retroflexion of the uterus."

Nonat† says, that with one of his patients this pain was caused by the introduction of a large vaginal speculum. Nonat is of the opinion that coccygodynia "presents two forms differing by the nature and by the location of pain." Sometimes this pain has its seat specially in the sacro-coccygeal articulation, and then it may be of a rheumatic origin, or from a traumatic cause. He says that in the first it usually proceeds from exposure to cold, whereas in the latter it is usually provoked by some exterior violence, as by a blow, a fall, an exaggerated distention of the articulation by the head of a fœtus, forceps, or speculum. This author believes that sometimes the affection is of a nervous nature, and offers all the characters of neuralgia. It is then, especially, that it is to be ranked along with the neuralgic complication of uterine and peri-uterine affections.

Nonat, who has written but little that is valueless, expresses himself so positively and clearly on certain points regarding coccygodynia, that I quote further from him, not literally, but substantially in the abstract as follows: "When the coccygodynia is articular or sacro-coccygeal, it is augmented by pressure upon this point, by movements of the extremities of the coccyx, and by all changes of position a little '*brusque*.' It is also increased by a sitting position, and by efforts at defecation. The pain is of a lancinating character, and extends to neighboring parts.

"It can exist independently of all uterine or peri-uterine affections, but if present coincidently with one of these affections, it does not receive any modifications by their treatment.

"The neuralgic variety of coccygodynia does not occupy any seat as exclusive or as limited as the articular. The pain is more extended and more diffuse, extending to the parts near to the coccyx, sacrum, in the ano-perineal region, and in the direction of lumbar and sacral nerves. It is lancinating, and produces an hyperæsthesia of all of the skin in the sacro-coccygeal region; it is sometimes intermittent, while at other times it presents alternately remittences and exacerbations.

"These exacerbations are sometimes of extreme violence, they coincide more often with fluxionary and inflammatory recrudescence, which are themselves produced in uterine, or periuterine affections, particularly at menstrual epochs."

Neuralgic coccygodynia coexists, or alternates, sometimes with other neuralgic pains.

When coccygodynia is associated with disorder of the uterus or its annexes, it follows often a parallel progress with these diseases; increasing or diminishing with them, receiving a favorable influence from their treatment, and sometimes cured with them.

In some cases, however, the coccygeal pain is rebellious, and persists long after the uterine or periuterine disorder has disappeared. It then demands treatment for itself. Nonat seems to have devoted more space in his work than any other French writer has done to the consideration of this disorder. One of the very latest* volumes by a French author on "Diseases of Women," which, by the by, is an excellent work in many respects, devotes less than two pages to the subject of coccygodynia. In this chapter its pathological anatomy is disposed of in five lines, as follows: "There has evidently been described under this same title affections of variable nature. It is thus that there has been found lesions of the periosteum, or of the sacro-coccygeal articulation, an abnormal mobility, or an increased length of the coccyx."

With the exception of this remarkable clause, there is nothing on the subject, by this author, but what has appeared many times before.

A careful physical examination enables one to differentiate coccygodynia from any of the other disorders to which the region is liable. As a rule a valuable diagnostic sign is the extreme mobility, especially under the influence of anæsthetics of the supersensitive portion of the bone drawn forward by muscular action.

And now let us turn from the causes and the diagnosis of this disease to speak briefly of its treatment.

Cases of coccygodynia which arise from climatic causes may be similar to cases of myalgia in any of the other muscular structures of the body, will be of rather an acute type, and yield to very much the same treatment as is employed in myalgia.

Chronic cases of a mild character will sometimes yield to epispastics or mild blistering, and anodynes administered either by the mouth or rectum.

The hypodermic injection of morphia over the coccyx may overcome the irritability and painfulness of the muscles, and possibly effect a cure. But if the case does not improve in a short time under some of these modes of treatment we must have recourse to surgical art.

So far as my own experience has extended, I agree with the majority of those whose observations of the disease are on record, that in well-marked cases medicine is of but little avail.

Hence, we can understand why patients, deeming their disorder incurable, refuse to have further medical attendance. On the other hand it will not do to leave the disease to nature, as patients gradually become worn-out with pain, and while waiting for nature's tardy reparation, their vigor diminishes, oftentimes the chief reason being their inability to take any kind of exercise.

Courty, writing on the treatment of this affection, begins by the statement that "a cure is difficult to obtain." In illustration of this assertion he adds that in twenty-four cases observed by Scanzoni, ten only were terminated by cure, in nine there was simply amelioration; in the remaining five the definite results were unknown. The treatment employed was extremely varied, including leeches, blisters, belladonna, aconite, chloroform, morphine, etc.†

It would seem from this, that he relied only on medication, and did not, in a single instance, have recourse to surgical measures.

Courty further states that Hörschelmann of St. Petersburg, "obtained, in 1862, two cures, thanks to aconite," but both were children. This portion of the chapter concludes with the assertion that Simpson, who has seen all these means fail, first proposed the subcutaneous separation of the coccyx from its

* Op. citat.
† Maladies de l'uterus, Paris, 1874.

* Manuel Pratique de Gynæcologie, par le Dr. L'De Sinety, Paris, 1879.
† Maladies de l'uterus, etc., par A. Courty, Prof. etc., Paris, 1872.

muscular attachments, and when this does not effect a cure he does not hesitate to remove a part, or the whole of the coccyx.

The divisions of the disease by Nonat have a practical bearing upon its treatment that should not be lost sight of.

I took the position several years ago, in a published paper on the subject of this lecture, that the disease is not neuralgic, and that the majority of cases require surgical treatment only.* There was at that time but little literature relating to coccygodynia, and the conclusions regarding it were based almost exclusively on my own observations. Increased observation and knowledge leads me to believe that these *may be* typical cases of articular and neuralgic coccygodynia, and that medical treatment, to be intelligently directed, must depend on their differential diagnosis. Further, in every instance therapeutic means should be given a full and fair trial before having recourse to any kind of surgical operation. I say this on the authority of reliable observers, rather than from my own observation; the truth being, that while I have had some patients cured by the administration and local application of remedies, the majority of my patients with coccygodynia have been benefited only through surgical interference. It is taught that the treatment should be different in one variety than in the other. For instance: in the articular form it is important that the patient should repose in the horizontal position in bed, thus securing immobility of the pelvis.†

Each topical application of opium, or belladonna plaster, or chloral liniment, may often prove of service, but when the pain is severe more potent remedies are required, such as the hypodermic injection of morphine, or atropine, or a combination of the two.

In the neuralgic coccygodynia, according to Nonat,‡ "if the disorder does not yield to the treatment directed to the uterine or perinterine affection, with which it is so frequently complicated, it should then be treated as a simple neuralgia;" the use of topical applications are about the same as mentioned in connection with the articular form; hypodermic injection of morphine, or atropine, are essential in this disorder; rectal suppositories of opium and belladonna may be used with great advantage. I have myself prescribed, with good results, particularly when the coccygeal pain was aggravated by defecation, suppositories of extract of stramonium. If the coccygodynia is of an intermittent character, our principal therapeutic reliance is quinine, which should be freely and persistently administered.

Nonat says that two cases treated by him, where all the means just mentioned had failed, he succeeded in curing by the use of the actual cautery applied over all of the painful region. This author, who seems to have given medical therapeutics a fair and impartial trial, also concludes that the refractory cases that do not yield to treatment should be operated upon after the method proposed by Simpson.

I have spoken somewhat at length on the medical treatment of this disease, for the purpose of informing you how much you can reasonably expect from medication, and also to show you by what process of reasoning experienced gynæcologists have come to the conclusion that while in some instances medical treatment will effect cures, there is a limit to it where surgical aid must be sought, and through which radical cures can alone be effected.

There are two operations possible for the cure of this painful disorder, neither of which are attended with any great risk to the patient. The first I shall mention is a subcutaneous operation, originated by Simpson, which has for its object "the complete separation from the coccyx of the muscular and tendinous fibres that are in connection with it," upon a principle somewhat similar to common operations for fissure of the anus and for vaginismus. To effect this, a tenotomy knife may be passed underneath the skin at the inferior portion of the coccyx, then turned flat upon the bone, and all the muscular and tendinous attachments severed, first upon one side and then on the other, as far up as the sacro-coccygeal articulation. The operation is quickly and easily performed, attended with but little pain or loss of blood, and by this simple proceeding patients are not unfrequently instantly relieved from their sufferings, and permanently cured.

Simpson relates one case of a lady who had long suffered from coccygodynia, where, while he was performing this operation, the slender knife broke deep in the tissues.

He told the patient of it, and she at once raised herself up, alarmed to hear of the calamity; "but," he adds, "before I had done telling her of what had happened, she had time, in sitting up, to discover that she had been cured of her disease, and, rejoiced at the discovery, quickly replied: 'Oh! never mind, my pain is gone—let the knife remain;' and there, for aught I know, it remains to-day."

The other operation is the extirpation of part or the whole of the coccyx. In very fleshy women the proceeding just mentioned is not easily performed, and in the case of patients where the subcutaneous operation may have relieved for a time, but not permanently cured, amputation of the coccyx should be resorted to, as it effects a radical cure.

There are certain conditions where I would perform the latter operation instead of prefacing it by the former, as when we have reason to think the bone is diseased, and in such cases, as with one of my own, where the coccyx was extremely painful and movable, and with the point drawn forward by the action of the muscles, so that the mobile portion was about at a right angle to the remaining part, acting as a foreign body and as a constant irritant. I also deem it better to remove the bone when it is both supersensitive and anchylosed, which, however, is an exceptional condition.

The mode of operating for amputation of the coccyx is as follows: Anæsthetize the patient, and place her upon her right side, that the index finger of the left hand may be introduced into the rectum to press the coccyx backward, and as a guide during the progress of the operation.

Cutting down to the bone with a scalpel, it can be further separated from its attachments by means of scissors, or a knife, as we may choose, and selecting the location where amputation is to be made, we can then disarticulate at the joint, or follow the mode of Simpson, who used the bone-forceps and cut the bone without reference to joints.

By one of the procedures mentioned, namely, separation or amputation, we can confidently expect a cure; and as neither is attended with danger, we are also able to class these operations among the satisfactory ones of surgery.

I cannot conclude without giving you two important points relating to amputation, which were taught

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* Coccygodynia. A paper read before the Mich. State Med. Soc., June 12, 1873. By Edward W. Jenks, M.D., etc.

† Nonat, op. citat., p. 1620.

‡ Op. citat., p. 1020.

me by my earliest operations, as follows: 1st. In case you amputate the bone by means of cutting forceps, remember that the bone of the stump should be "rounded off," so that there will be no sharp points to prick and annoy the patient whenever the skin of that region is made tense. In one patient I operated upon, where the removal of the bones of the coccyx put an end to a long period of suffering in every respect, except the one just named, a second operation became a necessity.

2d. I believe that disarticulation is the better plan; and if you decide to operate by this mode, remember that in case there is articular cartilage on the stump, it should not be allowed to remain intact; on the contrary, you should cut away thin slices of the cartilage, by reason of which the process of healing will be quickened and made more perfect.

Original Communications.

TREATMENT OF SUBACUTE AND CHRONIC GOUT.

By ALEXANDER HADDEN, M.D.,

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Gout is an affection which seems to be as old as civilization itself. Nearly all the physicians of the early periods of medical science, who have left any records, have made mention of it. The descriptions of it given by Hippocrates, Galen, Celsus, and others of their respective times, show clearly that they understood the disease as well as did those of a later date, as Sydenham, Wollaston, Boerhaave, etc., and with the exception of the contributions made by modern chemistry and microscopy, their knowledge of the subject was fully equal to that of the physicians of our own time. Among the most prominent of these last who have written upon the subject and whose names are familiar to the profession, may be mentioned Garrod, Todd, Watson, and Budd.

By universal consent, the presence of uric acid in the blood and urine, where it exists in the form of urate of soda, and the deposits of the same in the joints, has now become a diagnostic sign, one which pre-eminently distinguishes gout from all diseases of a kindred nature. I will therefore make direct reference to this fact as a cardinal point in the treatment of the malady. Certain circumstances, together with the treatment of a number of cases, with well-demonstrated results, have lately shown to my mind conclusively, that some things usually set forth as the prominent causes of gout, are only apparently such, and this, because of their intimate association with the real causes; I refer now to a diet embracing a large proportion of flesh meats and other articles containing a large amount of the nitrogenous and albuminous principles.

Heretofore all authors who have written upon gout have united in classing foods of the character named as among the chief factors in the production of this disease; hence in their treatment of it such have been, to a great extent, excluded from the dietary of the patient. Now, free livers, as a general rule, are large consumers of animal food, as well as of wine, beer, etc.; and leading at the same time, perhaps, inactive lives. Whether it was the association of the meat diet with these other conditions that led to this conclusion, thus attributing to one cause what was in reality due to another, I cannot say; but the fact is as stated.

Dr. Garrod, in his remarks upon the causes of gout, seems to be somewhat in doubt when speaking of the effects of various kinds of food upon different animals. He instances the tortoise, feeding exclusively upon lettuce, and excreting the urates in greater proportion than the dog which feeds upon animal food. Sir Thomas Watson, also, is not quite clear when treating of the causes of gout. He mentions the case of butchers who are rarely afflicted with the disease, though, as might be expected, great consumers of the commodity in which they deal. Men and women of sedentary habits, according to him, are not especially apt to suffer from gout, while, on the other hand, the huntsman, a free liver, but taking an abundance of exercise in the open air, does so suffer.

Dr. Budd seems to be more positive in his opinions as to the causes of gout. He speaks of the ballasters of the Thames who drink excessively of malt liquors, and who almost universally suffer from this malady, although taking a large amount of out-door exercise.

Dr. H. Bentley Todd, in an article on gout in the London *Journal of the Medical Sciences*, for Dec., 1843, recommends, in a very cautious way, the employment of a moderate amount of animal food in the treatment of this disease, discarding, at the same time, all vegetables having saccharine properties, or which might be prone to acetous fermentation in the stomach and duodenum; and thinks that a diet of this kind, embracing a fair proportion of animal food, and regulated as to quantity, would be the one most conducive to the establishment of a healthy digestion. This author—I may here remark—is the only one, so far as my reading extends, who does not assign flesh food as a cause of gout, and show a disposition to exclude it from the bill of fare in the treatment of this disease.

In regard to the different theories that have been from time to time enunciated by medical men in regard to the pathology of gout, they are too numerous to dwell upon here; but the cases which I shall present, will bring out some new facts, or at least some facts not hitherto observed, in the treatment of this malady.

Case I.—D. B. P——, æt. 50; native of the U. S.; married; by profession lawyer; residence, Brooklyn, N. Y.; came into my service at the Presbyterian Hospital Dec. 1, 1879, having been a helpless sufferer from gout for eighteen months previously. He had been, when in health, a man of fine physique, tough and rugged, descended from a long-lived ancestry, both parents dying at advanced ages, and giving no hereditary history of the affection in question. He had been a free liver, and though not intemperate, had yet indulged freely in almost all kinds of alcoholic beverages. When he came under my care his condition was as follows: Feet and hands very much swollen, especially the joints of the fingers, which were also deformed by gouty deposits; the joints of the toes the same; the knees, shoulders, and elbows also swollen, so that he was unable to move either arms or hands. Almost every joint in the body was stiff and painful; even the temporo-maxillary articulations were stiff and painful to the degree that he could not open his mouth sufficiently to take food, except such as had been reduced to a fluid or semi-fluid state. He was confined to bed and unable to move even a finger. Was in fact totally helpless, and had besides, severe gouty conjunctivitis. The heart's action was feeble, but no organic change had

yet taken place. Kidneys healthy: no evidence of albumen or casts. Large quantities of the urates of soda were eliminated by these organs. Lungs large and healthy, and brain clear. He suffered at times from intestinal flatus, and at times from diarrhœa, alternating with constipation. It was, in fine, a typical case of an advanced stage of gout. The patient had been subjected to all the ordinary and well known methods of treatment usually employed in such cases, but without anything more than very temporary relief. The disease was thought to be in a progressive state, and the case regarded as hopeless.

On December 8, 1879, patient was put upon the following treatment: a diet consisting almost wholly of animal and albuminous foods, with such vegetables as contained neither amylaceous nor saccharine principles, such as white turnip, spinach, leeks, celery, raw cabbage, onions, both raw and cooked, potatoes sliced thin and fried crisp, gluten bread toasted. All stimulants, both alcoholic and malt liquors, were withheld. When diarrhœa was present a sufficient amount of opium was given to control it. The exhibition of salicylate of soda, which the patient had been taking previously, was continued in small doses several times a day, so far as to relieve any occasional rise of temperature, and check any fermentation of food that might take place, but not with a view to cure the disease. The wrists and hands were encased in plaster-of Paris, so as to prevent all muscular movements. Under this treatment the patient began slowly to improve. The urates disappeared from his urine, he became free from pain, was soon able to sit up the greater part of the day, and finally he became able to walk. At this writing, March 15, improvement still continues.

Case II.—Rev. Charles P——, æt. 57; native of the U. S.; married; by profession; a teacher was a case of hereditary gout, several of the patient's ancestors and near relatives having suffered from the disease. Since 1848 he has himself been subject to attacks of the malady, which were sometimes attended with great cerebral disturbance, causing him to lie upon one occasion for three weeks unconscious. These attacks became more frequent and of longer duration until, in the autumn of 1875, he became a confirmed invalid, and has so remained up to the time of his coming under my care. He would be sometimes, as he himself states, bright and cheerful; but most of the time he was unable to attend to the duties of his profession, or even to walk. In the spring of 1879 he experienced some mitigation of his sufferings; but in September of that year, although residing in a district of country famous for its salubrity, he was taken down with chills and fever, which continued for three weeks, and from this time he never left his bed until he set out for the Presbyterian Hospital, New York, where he arrived December 6th, and I saw him for the first time on the 7th.

In this case, as in No. 1, nearly all the joints of the body, both large and small, were inflamed, swollen, and painful. He had lost all appetite, food had become distasteful; his digestion was much disordered; there was borborygmus, great and frequent evolutions of gas, and the bowels were obstinately constipated. The circulation was feeble, 42–45, and intermittent. He had been rapidly losing flesh and strength, and the condition of his nervous system was such that he could endure neither light nor sound. He had been living mostly upon farinaceous food, fruits and milk. He had taken all the remedies usually prescribed in such cases, and also stimulants, both spirituous and malt, but all without benefit.

He was first ordered a cathartic pill of compound calocynth, in order to clear his bowels. He was then put upon salicylic acid and ordered to take bicarbonate of potash, gr. xx., at bed time, to make him sleep. On December 8th he was put upon the meat and non-amylaceous and non-saccharine diet, with a bill of fare substantially the same as that ordered for Case No. 1. On this treatment, by January 10, 1880, one month from its commencement, the urine of the patient, which had been at first acid, now became neutral, and the urates had wholly disappeared. By the 18th, the urine showed an alkaline reaction. The deposits in the joints were now rapidly disappearing, the patient was free from pain and going about the hospital, and on the days going outside to walk. Improvement still continued up to 1st March, when he left the hospital on a visit to his friends.

Case III.—S. J——, æt. 22, native of the U. S., single; conductor on horse-cars. Two years ago had an attack of gout in right foot, which continued for two months, and was followed by pain and swelling in the right knee and hip. Both hands were also slightly swollen and somewhat stiff. No distortion, however, had yet taken place in any of the joints. These conditions continued with intermissions up to the time of his admission. On January 8th, he was put upon the meat and non-amylaceous and non-saccharine diet, and ordered to take salicylate of soda. Improvement in patient's condition was soon manifest, the urates disappeared from his urine, his hands became quite supple; but as he was discharged for insubordination on the 26th, having been in the hospital only a little over three weeks, the time was too short to show the full effects of the treatment; but so far as the case had progressed, the same favorable results were seen as in the preceding cases.

Case IV.—M. G——, æt. 35, native of Ireland; married; by occupation housekeeper. Has had trouble with her feet for the last five years, interfering very materially with locomotion. About six weeks previous to admission her feet became œdematous and the ankle-joints very tender. The knees became involved subsequently, and finally the wrist and elbow. All these joints were swollen and tender, but never red. At the same time she was taken sick with flatulence and pain at the epigastrium; symptoms all pointing plainly to a case of gout.

On December 6th, she was ordered to be put on the flesh and non-amylaceous and non-saccharine diet, and the fingers of the right hand to be put in a plaster-of-Paris bandage. In this case, as in the others, the urates disappeared from the urine, and the specific gravity steadily increased from 1012 1015, then to 1018, and finally to 1020, and the patient's general health showed manifest improvement. On the 26th, the diet was again changed to one purely vegetable. Although the effect was not at once seen in the urine, it was immediately apparent in the general health of the patient. The tone of the system was evidently lowered. But on the 5th of the following month, twelve days after the change to a vegetable diet had been made, the urates reappeared in the urine, when she was again put upon the animal diet. The patient left the hospital a few days afterward, discharged at her own request; so that I have no means of knowing the final result. The history of this case is given in this connection, simply because it illustrates so well the effect of the meat and albuminous diet in causing the urates to disappear from

the urine; and then again the result from the employment of a vegetable diet in causing their reappearance in large quantities.

I would call especial attention to this method of putting gouty patients upon a diet of strictly animal and albuminous foods, together with such vegetables as are destitute of amylaceous and saccharine properties; for that is the central fact in the above plan of treatment. It may be noticed too, that in the treatment of these cases none of the usual medicinal agents have been employed, with the exception of salicylate of soda, and such others as were from time to time indicated for the correction of merely temporary conditions.

As has already been shown, gout may be produced under many and various conditions and circumstances: either where there is a hereditary predisposition to the malady, or without; under circumstances of active exertion, or where persons have led sedentary lives; where there has been use and even abuse of the stronger alcoholic beverages, or where the subject has been strictly temperate, even abstinent. Under each or all of the above conditions, persons may have the gout or may escape it entirely. But while this is the case, it is a settled fact that those who live largely upon animal food are less liable to the disease than others; while, according to Dr. Gubler of Paris, who has recently been making extensive researches into diseases of the blood-vessels, those living upon an exclusively vegetable diet, as do many of the French peasantry, and more notably the monks of La Trappe, are peculiarly subject to chalky or calcareous deposits in the arteries. The same is true of animals and birds as well. Siedamgrotzki states that gouty deposits take place in the pigeon; also in the turkey under domestication, and in the common barnyard fowl. In further confirmation of this we have the testimony of Mr. Wm. A. Conklin, Director of the Zoological Garden in Central Park, New York, who, in reply to my inquiry, affirms that it is only the herbivorous and granivorous animals and birds that are subject to such deposits, while the carnivora escape them entirely. This fact alone might, I should think, indicate the point of departure in the treatment of this disease.

Might it not be too, that in the case of animals and birds, as also in the case of the human subject, feeding upon too exclusive a diet of vegetable food, abounding in amylaceous and saccharine elements, under certain conditions a species of fermentation is set up, resulting in certain chemical changes somewhat analogous to the fermentation of vegetable matter out of the body, whereby certain gases are evolved and certain properties generated? For example, the fermentation by which wine and beer are produced.

ABSCESS OF THE ANTRUM, WITH CHRONIC DISCHARGE.

Treatment and Cure by Use of a New Drainage-Tube.

By W. F. DUNCAN, M.D.,

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The patient, a lady, aged about fifty-eight, came to me for treatment of an offensive discharge from the antrum and nasal catarrh, in December, 1878. She then gave the following history: "She had always enjoyed moderately good health until the year 1869, when a constant earache and pain in the upper jaw on the right side, occurred; the pain was increased on going out in the cold air, even in a closed carriage. Nothing gave any relief, and the pain was endured as a chronic neuralgia. In 1873, a dentist, who was called in to extract the second right molar tooth, discovered a fistula, through which a little matter exuded, leading to the antrum. About this time a disagreeable matter began to run from the right nostril, and the whole of the right side of the face felt sore and painful. The dentist kept open the fistula by strong injections of iodine, zinc, etc., which came out of the nose. After nine weeks, acting on the advice of a distinguished surgeon, it was allowed to heal. The severe pain, which had been modified but not entirely relieved when the fistula was open, immediately returned when it was closed. Nothing was done from this time until April, 1878, except to syringe the nostril, which constantly discharged pus.

Again, a dentist was visited on account of pain in the teeth of the lower jaw on the same side. He found the aching teeth to be sound, but discovered the disease of the antrum, and drew two molar teeth from the upper jaw and opened a large passage to that cavity. It apparently healed again in two weeks, and the old pain came back. Another surgeon being consulted, made an examination of the nose for tumor, but discovered nothing but "congestion." A third dentist being visited, reopened the antrum, probed it, injected iodine, etc., and the discharge increased. He introduced a solid, hard rubber plug, which he wired to the bicuspid tooth, and directed it to be removed daily and the cavity to be washed. Again, a surgeon was called on, who advised making with a stout drill and gouge, a large opening through the alveolar process into the sinus, prognosticating serious future trouble unless the operation was done." She then came to my office for examination, December, 1878. I prescribed a wash, a solution of salicylate of soda, and spray to be used daily, and suggested a means of cure without an operation. After the first visit I saw nothing of my patient for six weeks, when she returned for treatment. Examination of the antrum with the probe failed to reveal any dead bone, which she had been told might exist. The opening through the alveolar process was about the size of a crow's quill. A small counter-opening into the middle meatus of the nose existed, which I enlarged at once by the forcible introduction of a strong right-angled probe. The inspection of the nares by means of a speculum and strong light showed a mass of sticky, whitish secretion filling the whole of the right side, and, when this was washed away, a polypoid thickening of the middle turbinate bone appeared. The right nares was unaffected.

The parts were thoroughly cleansed daily with syringing through the antrum, and an astringent spray was used to relieve the inflammation. After the lapse of a week I had constructed a silver tube $\frac{3}{4}$ in. long, $\frac{1}{17}$ in. in diameter, with a flange at one end, to which was soldered an arm, $\frac{1}{2}$ in. long, of malleable silver; the sides of the tube were perforated with holes. I introduced the tube into the antrum, tying the arm to the bicuspid tooth to keep it in position; the object being to establish a permanent drainage, and carry off all the foul pus which before had been allowed to accumulate in the sinus, and to make use of the two openings to thoroughly cleanse the diseased surface. The patient assisted the cure very greatly by taking a mouthful of carbolized water, and forcibly ejecting it through the antrum into the right nares and thence into a vessel. She repeated this operation frequently, and thus prevented

pus from collecting in the sinus. Sprays of nitrate of silver, zinc, ferric alum, etc., were used at intervals of a few days. The face-ache and ear-ache at once disappeared, and the discharge gradually grew less until the present time, when it is imperceptible; the patient became stronger, and now, after fourteen months' treatment, pronounces herself well. She still wears the tube because it occasions no inconvenience, and she fears to remove it lest it will cause the disease to return. Examination of the parts shows them to be in a healthy condition, with the exception of a slight thickening of the mucous membrane of the turbinate bone.

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HYDRONEPHROSIS OF TRAUMATIC ORIGIN.

By J. L. HICKS, M.D.,

Flushing, N. Y.

The discussion of hydronephrosis in a recent number of the Record suggests a case of that disease of traumatic origin which came under my notice last summer, an account of which I transcribe from my note-book.

On the evening of August 1, 1879, I was asked by Dr. Burne to see with him P. C., eleven years of age, a spare, rather badly nourished boy, but who, up to the present time, had enjoyed fair health. Three weeks previously he had been kicked by a horse, the blow falling upon the abdomen upon the right side, and as nearly as could be ascertained below the level of the umbilicus. He dropped upon his knees, and then fell forward unconscious. He soon revived, and was carried home apparently very weak, but not suffering much pain. The following day there was a little pain and tenderness in the abdomen over the seat of the blow, but no swelling or tympanites, and no fever, but occasional nausea after eating. He said, however, that he could not lie comfortably on the left side. The bowels had moved, and continued thereafter to move as usual every day. The morning following the injury he had passed a large quantity of pure blood from the bladder; this was followed by vesical tenesmus and the passage of urine *guttatim*, and finally by a large and free flow of water unmixed with blood. The boy after this was tolerably comfortable, and moved about to a limited extent, passing a fair amount of water with ease and regularity. Some pain, however, persisted over the seat of the injury.

On the day that I first saw him there had been some increase of pain, and he had remained in bed; warm compresses had been applied, and I believe he had had a little opium. On examination I found his pulse accelerated without increase of temperature or other evidence of constitutional disturbance. There was a sharply-defined, circumscribed, fluctuating, tense swelling on the right side of the abdomen about six inches in diameter, evidently originating below the abdominal walls, unaccompanied by œdema of the subtegumentary tissues, or the brawny feel and appearance usually associated with an acute abscess. With the view of learning something more of the nature of this tumor, I thrust the needle of a hypodermic syringe into its summit and withdrew a syringeful of a clear, colorless, limpid fluid, having a faintly alkaline reaction and no perceptible odor. With the doctor's concurrence I then introduced the middle-sized needle of an aspirator, and withdrew a little more than two pints of a clear, pale yellowish fluid, to the great relief of the patient, who now found himself able to lie indifferently on either side, and who, after the application of a compress and bander, enjoyed a quiet night's sleep.

The aspirated fluid had a sp. gr. of 1010, was feebly alkaline, contained a small amount of albumen and a considerable amount of sodium chloride. There was a slight precipitate, but no change of color, with sulphuric and hydrochloric acid.

Urine drawn from the bladder immediately previous to the above tapping was strikingly similar in appearance to the tapped fluid, but gave an acid reaction and had a sp. gr. of 1020. Precip. by heat redissolved by nitric acid and changing to brown with slight effervescence. Precipitate by nitrate of silver not redissolved by nitric acid or ammonia.

August 5th.—The fluid has accumulated again, and the tumor seems even larger than at first. As the patient lies in bed the flank seems prominent and overhanging, and he complains a good deal of pain which he defines as centering at a point as nearly as possible over the middle of Poupart's ligament. His pulse was a little quick, expression anxious, but there is no elevation of temperature. Aspirated the collection of fluid and drew off two quarts with great relief to pain. This fluid resembled that first drawn off. Sp. gr. 1008; light yellow alkaline; same chemical characters as before. It contains merely a trace of urea. Microscopic appearances for the most part negative, presenting neither epithelium of any kind, crystalline deposit, or blood elements. The only thing noticeable were aggregations of granules (bacteria), presenting movements in mass, and not resolvable by the highest powers available (one-tenth). The urine passed at the same time was light yellow, acid; sp. gr. 1016; somewhat more translucent than the other fluid; chemically similar to that first examined. Quantitative analysis gave 7.224 grains of urea to the ounce. The microscope exhibited vesical epithelium, but no crystalline deposits. Ordered tr. cinch. co. and syr. ferri iod.

August 8th.—The patient has been free from pain until to-day. Appetite much improved, and general condition good. The distention has now, however, become painful and he desires relief. Two quarts of fluid were drawn off which differed in no essential particular from that previously examined.

August 25th.—Since previous date there has been no reaccumulation of the fluid that I can ascertain. On two occasions I called at his house, but on each he was away from home. His parents say he was doing as well as possible. To-day I sent for him to come to my office. He appeared remarkably well, and had evidently gained flesh. All traces of the fluid collection had passed away. He states that after the last tapping he began to pass and still passes a much larger quantity of urine than before. A specimen, procured and examined at the time, was as colorless as water. Sp. gr. 1008, feebly acid, and slightly albuminous.

September 18th.—Called at the office. Has been away in the country for a few weeks. Looks remarkably well. Nothing observable to sight, or palpation about the abdomen. Says he is passing two quarts and a half pint of fluid in twenty-four hours. Since last date he has gone on well. The polyuria has diminished, and he is apparently enjoying as good health as before the injury.

Cases of the kind just narrated, though quite rare,

have been occasionally reported; two or three notably similar, but with ultimate disastrous results, are described in Holmes' System of Surgery. Hydronephrosis, resulting from disease of the kidney and urinary tract, associated with cysts of the kidney, or dilatation of the ureter from obstruction, progressive or sudden, has been studied through a sufficient number of cases to render its pathology quite familiar. Cases, however, of traumatic origin, involving a probable rupture of the ureter or kidney, and causing large and rapidly accumulating collections of fluid in the subperitoneal connective tissue, not accompanied or succeeded by inflammation and suppuration, and not associated with evidence of marked constitutional disturbance, are certainly not only rare but perplexing. The rapid and copious secretion of fluid by the kidney on the injured side, may be accounted for by a reflex irritation starting from the seat of the injury, which, in turn, may be conservative by determining a much less irritating quality of fluid infiltrated through the loose tissues, and so admit the formation of a protective cyst. The peculiarly bland character of the fluid found in such collections, differing so markedly as it does from the fluid drawn from the bladder, and which may be inferred to come from the kidney on the uninjured side, may, it seems to me, be more reasonably accounted for upon this hypothesis than upon the supposition that normal urine was first extravasated, and the crystalloid elements subsequently reabsorbed. The amount of urea in the cystic fluid is always small, but traces of it can usually be found. Cooper, Rose, and Spencer Wells are said to have met with cases in which there was no urea. Such fluid, if from cysts of a chronic character, would doubtless point to a process of reabsorption. Still it is hardly conceivable that normal urine escaping into the tissues from a ruptured ureter or kidney, could fail to set up the same active, diffuse, and destructive inflammation that is set up when extravasation takes place from a ruptured bladder or urethra.

The favorable issue in the above case would seem to point decidedly to the importance of prompt and persistent evacuation of collections of fluid succeeding such injuries whenever they may be recognized.

Reports of Hospitals.

NEW YORK HOSPITAL—OUT-PATIENT DEPARTMENT.

SERVICE OF DR. L. DUNCAN BULKLEY,

ATTENDING PHYSICIAN FOR DISEASES OF THE SKIN.

SERPIGINOUS TUBERCULAR SYPHILIDE OF THE SCAPULAR REGION, WITHOUT PREVIOUS HISTORY OF SYPHILIS OR ANY OTHER MANIFESTATION OF THE DISEASE.

THE patient was a female, thirty-four years of age, and of a perfectly healthy general appearance. There was no history of any affection of the skin whatever previous to that from which she was suffering. She had been married for fifteen years, and had had one miscarriage (at three months) not long after her marriage. Since that she had had five healthy children, three of which were still living, the other two having both died of acute diseases. She denied ever having had any of the symptoms of syphilis, and said that her husband had always enjoyed good health.

Eight months ago the present trouble made its appearance, and the first thing that she noticed was a small pimple near the lower border of the right scapula, which was quite protuberant, and covered with a white crust. This soon began to increase in area, and it has continued to spread ever since. The lesion was at first dry, but afterward became moist, and crusts would form over it from time to time, although many poultices and various lotions had been applied to it. It was always somewhat painful, but usually more so when the patient first got up in the morning than at any other time; and the pain was naturally increased by movements of the arm. Almost from the first appearance of the affection she had been under homœopathic treatment.

On taking a view of the lesion at a little distance, it was found apparently of an oval shape; but, examined more closely, it was seen to be more like a double crescent in outline. It was about three inches in length and two and a half inches in width, situated over the lower portion of the right side of the scapula, and extending in an oblique direction around toward the right axilla. In the centre there was a patch of a dark purplish color; around this there was a zone of cicatricial tissue, lighter in color; and, outside of all, a border of ulcerating surface. This presented a general raw appearance, which was, no doubt, due in great part to the fact that the patient was in the habit of washing it several times every day. If it had been allowed to crust over, it would have presented a very different appearance. On inspecting the central portion, it was found that the part had entirely healed, and was now covered with good epidermis. The circle of ulceration was of a somewhat inflammatory character, but was also seen to be composed in part of a new deposit which was non-inflammatory. There was no other lesion of any kind whatever on any part of the body.

In arriving at a diagnosis, Dr. Bulkley said it would be well first to exclude a number of affections for which this might possibly be mistaken. It could not be either eczema or psoriasis, because there was ulceration present, and the characteristic appearances of these diseases were wanting. For the same reasons, as well as on account of the fact that there was only one patch of diseased surface, it could not be a parasitic disorder, such as one of the forms of tinea. It might possibly be mistaken for epithelioma or some other form of carcinomatous disease; but it lacked the hardened edges and other features of such. There was the most danger of all, however, in confounding it with lupus. In the first place, the patient was still in the period of life when lupus almost always occurs, although she had nearly reached its termination. Then, erythematous lupus had the characteristic of extending peripherally as the lesion here was doing, and this form of lupus was sometimes seen quite late in life. But the strong point against such a supposition was the presence of ulceration, which does not occur in lupus erythematosus. The development had been too rapid for lupus: and, moreover, in true lupus there were always a number of outlying tubercles, the edges were irregular, and seldom, if ever, was one patch found alone, as in this case.

So, by a process of exclusion the diagnosis of specific trouble could be arrived at. But, in addition, there were certain characteristics of the lesion which pointed out unmistakably its syphilitic origin, such as the peculiar curving outlines of the growth. Then, the location was a point that should be taken into account, and Dr. Bulkley said that he had seen

a number of syphilitic lesions in this situation. The reason for it was probably the irritation produced by the top of the corsets, as well as that which the part received when the patient was leaning back or lying in bed.

In such a case as this it was difficult to say why the lesion should be present without any previous history, or any present evidences whatever, of syphilis. It was simply one of those anomalous instances which were met with from time to time, and the occurrence of which had not as yet been satisfactorily explained. It was a fact, however, that such lesions without previous syphilitic history were much more frequently found in females than in males, and it seemed probable that in them the immunity from the ordinary effects of syphilis was attributable, as a general rule, to very great activity of the organs concerned in child-bearing, which absorbed the energies of the system to such an extent that the cutaneous surface was almost entirely spared from invasion by the disease. In women the early stages of syphilis were sometimes passed through without any external evidence whatever of the presence of the affection; and in the case in question there had been no history of anything connected with it except this one late syphilide. Some might be inclined to doubt, therefore, that the lesion was of this nature; but Dr. Bulkley was of the opinion that the treatment which he proposed to adopt would show beyond all question that such was its character. Here the appropriate treatment was that called for in the later forms of syphilis, and the patient would consequently be placed upon small doses of the biniodide of mercury, in connection with the iodide of potassium. In addition, she would be ordered iron and such other tonics as her general health seemed to require. The reason that the affection had lasted so long, Dr. Bulkley thought, was because its true nature had not been recognized, and it had been treated almost entirely by means of local applications.

The only local treatment that he would recommend here would be simply the wearing of cotton batting over the part, which might be changed from time to time; although it was important that, when the patient washed the lesion, she should not remove the shreds of cotton adhering to it.

The subsequent history of this case was that the lesion yielded with remarkable rapidity. Within two weeks the ulcerated surface was about healed. She then neglected treatment for a while, being occupied with a sick person, and was again exhibited with the surface at the edge ulcerated and covered with thick, adherent crusts. Again the lesion yielded promptly to the mixed treatment, and she remains well.

LUPUS VULGARIS.

A case of true lupus was shown in a woman forty years of age, who had been under Dr. Bulkley's care for three years. This disease, although more frequently met with in Europe, is considered a comparatively rare one in this country, and Dr. Bulkley remarked that, personally, he did not see, perhaps, more than one or two instances of it in every thousand cases of skin disease that came under his notice in public and private practice. As before remarked, it was emphatically an affection of early life—that is to say, as regards the period of its origin, though it not infrequently continued until old age. It was very rare for it to appear after the age of thirty. In this case it commenced when the patient was fourteen. It made its appearance just on the side of the nose, from which point it spread until it had involved the whole face and ears, and extended for some distance down the neck, while there were also some isolated lesions upon the trunk.

Since the disease first began, the patient had been subjected to almost every conceivable method of treatment at the hands of many physicians. Thus, she had been salivated sixty four times (though never by Dr. Bulkley), had taken calomel for four years, had been painted with tincture of iodine for two years, and had been placed on the use of arsenic, in accordance with the practice of Mr. Hunt, for one year. When Dr. Bulkley first saw the patient, three years ago, the disease occupied the same area as at present, with the exception that there had, in the meanwhile, been a trifling increase at its margin. During the three years there had been very marked improvement in the condition of the parts. Thus, the lips and cheeks now presented none of that succulent and swollen appearance which had characterized them when he first saw the case, and cicatrization had been progressing in an excellent manner. It was this which had encouraged both himself and the patient to persevere steadily in the treatment, and attention was called to the numerous little white points and lines of cicatrization, which were regarded as so hopeful a sign. Last year the thickened and infiltrated lips had been twice the size that they are at present.

The treatment had been somewhat varied during this period. No very active local measures had been attempted, because of the patient's weakened condition, and the great difficulty of properly carrying it out in an out-patient. The disease was arrested first by the internal use of phosphorus in Thompson's solution. Then this seemed to lose effect, and for a while she improved much on the mixed treatment of syphilis.

Still, the previous ravages of the disease were painfully evident in the marked ectropion seen in the lower lids of both eyes, and in the destruction of the ala of the nose. About two years ago it had attacked the larynx, producing the change of voice now noticeable, and this was the case of lupus of the larynx which Dr. George Lefferts had reported in the *American Journal of the Medical Sciences* several months since. The irritation now caused by the lupous deposit in the larynx is now so great that she is greatly disturbed by a cough, which is gradually exhausting her. The air-passages are being treated by Dr Lefferts locally, with a measure of relief; but the prognosis of the case is very bad, and little or no hope of recovery can be entertained.

Dr. Bulkley spoke particularly of the absence of great ulceration in lupus, and stated that it was not apt to occur in this disease except at points where there was some special invitation inducing it. One of the principal characteristics of the disease, however, was scaling, the minute scales being arranged somewhat in the manner of thatching, and always firmly attached to the integument upon one side. Succulent, pulpy tubercles were also another feature of the affection, and some of these could still be seen under the right ear, and in little outlying patches upon the neck in this case, though they were much less marked than they had been a year ago. They were so soft that they could be dug out with the point of a pencil with the greatest ease. Lupus was a disease of the *cutis vera*, and its lesions were found to consist of a soft, small-celled deposit. In order that a cure might be effected, the all-important point was that cicatrization should take place.

FAVUS.

A case of favus was shown in a girl eight years of age, whose brother had been under treatment for the same disease for some time, at the Demilt Dispensary. It presented an exception to the general rule, in the fact that no scabs were to be found upon the scalp. This was due to a special cause, however. When first seen the child was found to be affected with phtheiriasis, and, in order to get rid of the lice, the hair had been kept soaked with kerosene for twenty-four hours (Dr. Bulkley's ordinary treatment in such cases). Hence, the crusts had all been dislodged, and almost all traces of the more serious disease obliterated. If the case had first come under observation at this time, the favus might perhaps have escaped detection, though its presence ought at least to have been suspected. It was not unfrequently the case, said Dr. Bulkley, that patients were brought to him in which special care was necessary in making a diagnosis, since they had already been under good treatment for a time, and many signs of the real nature of the disease present had thus disappeared.

On making a careful examination here, there were found three little red patches on the scalp, which were devoid of hair. These could not be due to simple eczema, for this does not destroy the hair, while in *alopecia areata* the patches, instead of being more highly colored, were whiter than the normal skin. Hence, notwithstanding the absence of the characteristic crusts, there was good reason for ascribing the trouble, in all probability, to favus.

Some might consider that, the crusts having all disappeared, the case was in a fair way of recovery; but Dr. Bulkley pointed out the erroneousness of this view, and also stated that the chronicity of a great many cases of favus was in reality due to this error of supposing the disease cured when there were no longer any crusts to be seen. It was a grave mistake, because the pathological process was still going on at the roots of the disease just the same as before. It was altogether probable that in a week the crusts would appear again in this case, and it would not be safe to dismiss it until every hair that had been or was likely to be affected had been epilated.

The disease was due to the growth in the epidermal cells of the vegetable parasite, achorion Schoenleinii, and this followed down the root-sheaths of the hairs, which were but involutions of the outer layers of the skin. If, now, the eruption were all swept from the surface, still there might be any quantity of the spores and mycelium of the parasite along the hair and within its structure, beneath the skin; and if this were left alone, it certainly would germinate and produce the ontward lesions outwardly recognized again and again.

URTICARIA PAPULOSA.

The patient, who was a boy, five years old, had been perfectly healthy up to two years ago, when the present eruption appeared. It had been treated for several months past by another physician, with arsenic internally and the application of spiritus saponis alkalinus externally. The affection was seen to be located on both upper extremities (extending from the ends of the fingers to the elbows), upon the back and buttocks, on the outsides of the thighs, and all over the legs; while the face was almost, and the trunk entirely free from it. It consisted of very numerous hard papules, and numerous scratch-marks were present. It was ascertained that the patient scratched himself very much, especially at night.

The case at first sight strongly suggested one of scabies, and in some respects the eruption on the extremities resembled it so strongly as to lead to a very careful study of its features.

Although there were two younger children in the family, neither of them had taken the disease, and the mother also remained free from it. If, as had been supposed by some, it were a case of scabies, Dr. Bulkley remarked that that disease would not exist in this isolated way without other members of the family getting it, although it was possible for scabies to be found under such circumstances; as, for instance, if the affected child had been in a public institution in which the disease existed, or visiting away from home for some time, and had only just returned. Therefore, he remarked, that it was not always safe to place too much reliance on absence of the disease in those around the patient. Occasionally also we find those who do not take the disease when exposed to it.

There were other things to be looked at, however, besides this. If scabies were present we should find somewhere about the hands or wrists the little furrows of the *acarus scabiei*, which is one of the diagnostic points of the affection. These minute black lines, made up of little dots (the eggs and faces of the female insect) and looking like bits of sewing-silk beneath the skin, Dr. Bulkley said, were only to be found in one plate representing scabies, and that was the admirable one from Dr. Duhring's atlas, which was passed around. In scabies these furrows were not invariably to be found in adults, but in children they were almost always present. They were generally to be found located between the fingers, but in the case under notice none of them were visible. Indeed, there was no eruption whatever between the fingers, neither was the eruption nearly as marked about the creases of the wrists, and no furrows could be discovered there, as is ordinarily the case in scabies. There was none of it at the root of the toes and between them, as is always seen in that disease in children.

A careful examination was also made of the two other locations where the furrows of the acarus are most likely to be found, viz., the soft part of the ankle beneath the external malleolus, and the penis; but no trace of furrows could be found. Altogether, therefore, scabies was to be excluded in this case, and one additional reason for doing this was because there was some of the eruption on the face, which is very rarely the case in that disease. The lesions also were more thickly set on the arms and legs, and the papules much larger and harder than seen in scabies, and no vesicles could be found.

It was easier, however, to exclude scabies, Dr. Bulkley remarked, than to decide just what the affection was. There were some of the lesions of eczema present, and yet it certainly was not that disease. It had not attacked the flexor surfaces at all. The disease which this case most resembles is papular urticaria, although the character of the hard, shot-like papules scattered all over the ends of the limbs and on the extensor surfaces of the thighs differs from what we ordinarily look for in urticaria. But the congestion which produces the wheal in urticaria may, and often does, go on to form a plastic exudation in the form of a papule, and these, which were small at first, have, by long duration and scratching, been changed into the larger rounded papules seen here so abundantly.

Some time ago Mr. Hutchinson, of London, described a disease to which he gave the rather ridiculous name of *varicella prurigo*, and Dr. Bulkley stated that the present case corresponded to the cases of that disease which had been shown him in London last year. It was a very obstinate affection, and it was almost always worse in winter than in summer. It very frequently dated back to an attack of varicella, although not always. This boy had had varicella, and this appeared to follow it. He did not believe in any causal connection other than that common to all exanthematous diseases, which appear to weaken the skin and to render it rather more prone to such affections.

Dr. Bulkley hardly knew by what name to call the eruption in the present case, as it was difficult to find any one term that perfectly described its character. Some thought it to be lichen, while others would designate it as *strophulus pruriginosus*. He would rather hold to the diagnosis of papular urticaria.

The treatment consisted in the use of alkaline baths and subsequent inunction with carbolated cosmoline (gr. v. ad ʒ i.), and the internal administration of the syrup of the hypophosphite of soda, lime, and iron. The case was presented again a few weeks later very much improved, and shortly after was brought almost entirely relieved of the cutaneous disease.

TREATMENT OF SCABIES.

If the disease had been scabies, Dr. Bulkley said, he would have employed the following ointment:

℞. Sulphur..... ʒ i.
Styracis ..... ʒ ij.
Ung. adipis ..... ʒ i.
M.

The patient should first be washed thoroughly with yellow soap, and then have the above applied constantly for two or three days and nights. It was possible to cure scabies here as quickly as it is done in Paris, and Dr. Bulkley mentioned one case of his own in which the complete cure had been made in thirty-one hours.

Progress of Medical Science.

THE ANTISEPTIC THEORY IN OVARIOTOMY.—Mr. Lawson Tait recently read a paper before the Royal Medical and Chirurgical Society, in which he analyzed one hundred cases of ovariotomy, and endeavored to extract from them some indication of the value of antiseptics in this operation. In doing this he made the method of recovery in his patients the criterion of the value of the system, the basis of the antiseptic claim being that it prevented septic poisoning, or fever—the usual cause of death in ovariotomy. The antiseptic system, therefore, should uniformly facilitate recovery, as, in non-antiseptic cases, the germs would enter the peritoneum, and theoretically produce fever in every case. The presence, then, of a marked difference between the pulse and temperature curves of the cases treated antiseptically and those not so, in favor of a less febrile course of recovery in the former, would go toward establishing Mr. Lister's views. If there were no difference, the question remained where it was; but if a difference were found in the other direction, then the germ theory would probably fade away from professional acceptance. Details were then given of the system of pulse and temperature observations which he had taken by trained nurses for ten days succeeding ovariotomy. More value was attached to the pulse than to the temperature curves, as a rise in the former more certainly indicated something wrong. The temperature rose uniformly at night during recovery, while the pulse did not rise after the fourth night, in cases ending badly, however, while the temperature did not rise much, the pulse rose continuously. The non-antiseptic cases had a better pulse curve than the antiseptic, and their time of recovery was one day shorter. Judging from both temperature and pulse curves, the non-antiseptic method, with the short ligature, gave a better and shorter recovery than any other; the nocturnal acceleration of temperature in the antiseptic cases being caused by the suppuration due to the irritating effects of the gauze dressings. Mr. Tait had found more satisfactory results from dry lint dressings. His conclusion was that the Listerian method had no paramount influence in the course of the case; it could not be actually said to delay recovery, but it certainly did not facilitate it. He still employs the antiseptic precautions during operation.

In the discussion on the paper Mr. Spencer Wells defended the antiseptic method. His conclusion was that the use of antiseptics enabled the intraperitoneal method of dealing with the pedicle to be carried out without septic results. He agreed with Mr. Tait as to the advantage of dry dressings, for which he used thymol. He attached more importance to the variations of the temperature than to those of the pulse, as the latter is never affected by accidental influences. Since he adopted the antiseptic method the temperature had been markedly lower, seldom rising over 100°, and the use of the ice-cap had become very rare. Dr. Mathews Duncan said that in St. Bartholomew's Hospital, before the adoption of the spray, ovariotomy had been very unsuccessful, but that since its adoption Mr. Thomas Smith had operated in twelve cases with only one death (from injury of the liver). Dr. Thomas Keith had also had seventy recoveries in succession since he began to use the spray. Mr. Knowsley Thornton found that, as a rule, there was no fever after antiseptic ovariotomy, and when it occurred he suspected neglect on the part of the nurses. He agreed with Mr. Tait, that the wounds did not heal so well under the protective; he now simply applied carbolic gauze, leaving it a week or more, and he did not remember seeing any pus in his last seventy or eighty cases. The wound in ovariotomy ought always to be healed by the ninth or tenth day.—*British Medical Journal*, Feb. 14, 1880.

ACUTE MENSTRUAL GOITRE.—At the meeting of the Surgical Society of Ireland on January 16th, Prof. Bennett reported two cases which he regarded as examples of acute menstrual goitre, an affection of which but little is known, and which Virchow refuses even to admit into the class of goitres. The first patient, a girl sixteen years of age, was admitted into hospital suffering from intense dyspnœa, which was evidently due to a large bronchocele. Laryngoscopic examination showed the mucous membrane of the larynx to be livid but not swollen, and excluded the possibility of a foreign body or spasm. The attacks of dyspnœa had begun about a year before, and the neck had increased in size irregularly since then. The patient was fully developed, but an abortive attempt at menstruation six months previously had been the only sign of the establishment of the

menstrual function. On her admission to the hospital emetics and hot fomentations were tried without benefit, and as the case was urgent, laryngotomy was then performed. The trachea could not be reached below the tumor, because it extended very low down, completely filling the supra-sternal notch. The tumor presented none of the characters of a vascular bronchocele, and no vessel of importance was encountered in the dissection. After dividing the cricoid cartilage and the membrane, it was found necessary to divide the trachea for some distance behind the tumor by means of a probe-pointed bistoury introduced into the tube, before air could enter the lungs. A large tracheotomy tube was then introduced, and for two hours the patient was comfortable, when the dyspnœa again returned. The tube was then removed, and a large prostatic catheter was passed into the trachea and down toward the chest, meeting some slight obstruction on the way. As its point passed down beyond this, the air entered with a rush, and all was well again. A full-sized tracheotomy tube was then made with the length and curve of the portion of the catheter in the trachea, and the patient wore it constantly. It was found that the tube had to be 5⅜ inches long, in order to pass the constriction which impeded respiration. After the introduction of the new tube the dyspnœa did not recur, and the patient, after a short time, improved in health and began to menstruate regularly. At the same time the bronchocele diminished markedly in size, the circumference of the neck over the tumor falling from 15¾ inches to 12½ inches. Two attempts were made at long intervals to close the tracheal wound, but each time a recurrence of the dyspnœa made it necessary to reopen the wound and reintroduce the tube. The patient is now in perfect health, general and menstrual, and without visible goitre. The necessity for wearing the tube is probably due to the deformity of the trachea, which prevents the escape of mucus from the bronchi.

The second patient, a healthy girl, sixteen years of age, was admitted to the hospital suffering from a very prominent goitre. She stated that she had first observed it six weeks previously, about the time of the first signs of the menstrual discharge. She suffered from paroxysms of dyspnœa, but her ordinary breathing was easy, and her voice natural. Seven weeks later, she was suddenly seized with one of her attacks of dyspnœa, and died in two minutes of asphyxia. An autopsy could not be obtained. The tumor in this case, also, presented none of the signs of a vascular bronchocele.

In discussing the paper, Mr. Hamilton said that it seemed to him that death had occurred from spasm affecting the muscles. He suggested that in such cases a free division of the fascia covering the tumor might be attended with some relief, independent of the operation of tracheotomy, and referred to a case in the practice of the late Mr. Cusick, where the division of the fascia relieved the dyspnœa considerably. The application of a large number of leeches to the gland might also, he thought, afford relief. Mr. Croly stated that he had seen cases where patients, the subjects of goitre, were attacked with cellulitis of the neck, and where free incisions dividing the cervical fascia had relieved the symptoms. Prof. Bennett said that he knew the operation of division of the fascia had been attended with success. Leeching had been suggested in the second case, but in the first there was no time for it. Should another case present itself to him he would be inclined to bleed at the bend of the arm rather than to try leeches. He was not present when the second patient died, but an operation, if attempted, would probably have been attended with success.—*The Medical Press and Circular*, Feb. 11, 1880.

Treatment of Goitre by Chloride of Ammonium.—Dr. Stevens, of Dunham, Canada, states that he has employed chloride of ammonium in the treatment of seven cases of common goitre, or simple hypertrophy of the thyroid gland, with most surprising and satisfactory results. Six of the patients were girls under twenty years of age, and all of them were entirely cured after about three months of treatment. The seventh case was that of a married woman aged forty, and the mother of several children. The tumor in this case was of enormous size, and the patient suffered a good deal from disturbances of respiration and circulation. She took the chloride two or three months, and at the end of that time the bronchocele had reduced one-fourth in size, and all the circulatory and respiratory symptoms were relieved. Treatment was discontinued because she became pregnant. The dose used in all the cases was ten grains three times a day, but Dr. Stearns thinks larger doses might be useful in old cases. No other medicine or hygienic treatment was combined with the muriate of ammonia. In the cases of the six girls, the tumor had made its appearance about puberty, but in none of them was there any evidence of menstrual derangement or uterine disease.—*Canada Medical Record*, February, 1880.

The Treatment of Irreducible Hernia.—At a recent meeting of the Boston Society for Medical Improvement, Dr. J. C. Warren read an interesting paper on this subject. He advocated the use of elastic pressure by means of the rubber bandage, in addition to rest in the *inverted position*. The latter part of the method was new, and had been successfully employed by the author in several cases. The foot of the bed is to be so raised that the neck of the hernial sac shall be at a higher level than any portion of the abdominal cavity, and that not only all intra-abdominal pressure may thus be removed, but that gravity can aid in returning the hernial mass into the abdomen. No special medical treatment was found necessary. When the descent of the hernia is comparatively recent and consists of intestine only, no additional mechanical appliance is needed. When the hernia is of the large and mixed variety, various mechanical appliances must be brought into requisition. Rubber air-cushions and water-bags were recommended where bandaging seemed undesirable or failed to give satisfactory results. In the discussion which followed the reading of this paper, Dr. Hodges remarked that time and confinement to bed could not be over-estimated, no matter what other adjuvants might be brought into requisition. In 1852, attention was attracted in London to some cases of Mr. Bransby Cooper's, in which, by means of a spinal elastic bandage, an air-bag was bound down upon the irreducible tumor, and the whole apparatus having been further reinforced by buckled webbing straps, the air-bag was inflated through a protruding tube, with the gradual result of elongating the adhesions, inverting the sac, and accomplishing a complete reduction of the hernia.—*Boston Med. and Surg. Journal*, March 18, 1880.

Dr. William Thompson has been elected by the Trustees of the Jefferson Medical College, Honorary Professor of Ophthalmology.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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REGULATING THE PRACTICE OF MEDICINE.

THERE is a bill for regulating the practice of medicine in this State now before the Legislature. We fear that the announcement of this fact will hardly be received with the attention it deserves. Although medical men have been satisfied of the necessity for legislation in medical matters, there have been so many failures in securing the necessary reforms, that there is a growing disposition to ignore the whole subject. But this should not be. The profession must rise above such difficulties, and by the exercise of its influence must continue to work on in hope, taking advantage of every opportunity for the suppression of quackery. Such an opportunity offers itself at the present moment by the advocacy of the bill to which we have referred.

It is an encouraging circumstance that the people are beginning to appreciate that something must be done to protect them from unqualified and unauthorized practitioners. The circular which is found on another page, emanating from the Department of Education at Washington, speaks for itself, and is an evidence that the authorities of the general government are also being awakened to the necessity of something being done. Unfortunately, the general government does not possess the power, under the Constitution of the United States, to deal directly with these matters. The State Legislatures, being the supposed guardians of the "health, wealth, and welfare of the people" of their respective States, are the bodies to give the necessary aid. The medical profession is the one most familiar with the facts and necessities of the occasion, and upon it falls the onus of taking the initiative in the necessary reformation.

Under the present laws of this State, licenses to practise are issued by the medical colleges in the State, by the County Societies of the State, and, in addition, the diploma or license from a medical college or chartered society anywhere else outside of the State entitles the holder to practise physic and surgery in this State.

When a few weeks ago we gave the list of colleges granting medical diplomas, to say the least, on very easy terms, we also referred to a number of instances of direct sale of diplomas that came to our notice. And yet there is little doubt that the latter diplomas are valid qualifications for practice in this State at the present time. If this state of things continues, how long will it be before the people of this commonwealth will be at the mercy of every medical adventurer who may see fit to settle in their midst?

In view of this state of affairs it is quite a difficult matter for the public to distinguish an educated physician from one who is not. An attempt has been made to draw the line between these two conditions. The Medical Society of this State at its last meeting, held in February, gave a careful consideration to the question of medical legislation, and settled on the principles which should be incorporated in a bill to be enacted, if possible, during the present session of the Legislature. The matter was referred to a committee, who caused to be introduced a bill on the subject. This, with some modifications and amendments, has been reported from the Judiciary Committee of the Assembly, and is the one now before that body for its action.

In another column we give a copy of this bill, and will take this occasion to draw attention to some of its features. It will be seen that section one does not impair the standing of any who now legally practises medicine, but it will, in the future, very materially curtail the accessions we are receiving from other States and from Europe of men whose qualifications are not equal to those required by our medical colleges.

Section two is one of the most important features of this bill, inasmuch as it provides for the registration of all those now practising in the State. It is true that it may prove a little inconvenient for some practitioners to go to the County Clerk's office and register, while a few may object to the payment of a registering fee of twenty-five cents. These are hardships, it is true, but they should be cheerfully borne for the common good. The fee required in Great Britain for the same service is five pounds, and we believe there is demanded an annual payment in addition. This tax is cheerfully borne by our transatlantic brethren, who are willing to do anything that will insure a carefully kept and authoritative record of the educated and qualified practitioners of the kingdom. Section three merely prescribes the penalties for the violation of the act.

Section four is quite an important one, and invites a thorough and careful consideration. It is safe to say that there are a hundred or more licensing bodies in this State, while there is an indefinite number outside of it. This section restricts the number to

thirteen or fourteen. The medical colleges of the State are at present the warrantors of the qualifications of men who graduate, and this section makes them the warrantors of the qualifications of all who come to us from other parts. The task of ascertaining the fitness to practise of men from outside the State, is not an easy one, and consequently a fee for its performance is allowed. Such a fee as named in the bill is one which appears to be a fair and equitable return for services rendered. It will be perceived that by such a provision, the colleges, as examining bodies, can be held more directly responsible to the profession than would otherwise be the case.

As regards the enforcement of the act, it is necessary to say but a few words. Heretofore, the expenses of enforcement of similar acts have been thrown very unjustly upon the medical profession. It will be seen, however, that in the present bill it is provided that those who give themselves the trouble of enforcing the laws will receive something about equivalent to their actual legal expenses.

We need not go further to show that the present bill is a reasonable one, and that the profession of the State can consistently indorse it, and can use its best influences in securing its passage. It is the enactment of such a law in this and other States that would tend, in a very direct and effectual manner, to arrest the sale of diplomas, to which we have so often referred, and to which the Bureau of Education at Washington now calls public attention.

THE TESTS OF RESPONSIBILITY FOR CRIMINAL ACTIONS, AND THE NECESSITY OF MEDICAL EXPERT TESTIMONY.

The recent trial of John C. Hughes, in the Albany courts, for murder, has excited considerable attention on account of the conflicting character of the testimony and the ability with which the case, on both sides, has been conducted. The charge of Judge Westbrook to the jury has, especially, awakened much complimentary comment, as being a model of perspicacity and legal erudition.

That the charge might have been all this, and yet have presented some defects noticeable and interesting to medical men, is what we at present wish to show.

The claim put in by the defence was that the prisoner had been insane for some time previous to the murder, and was not, therefore, responsible for the crime committed. This theory led necessarily to the employment of medical experts, and the usual questions as to the value of their testimony were brought into consideration.

With regard to the test to be applied to determine the mental capacity and the responsibility of the patient, the court held the view given in a previous decision (the People against Flannigan): that, if a person understands the act he is committing—if he comprehends that and knows that it is wrong, and that the law will punish him for the commission of that act, he is accountable for the same. And this is true, although the person acts under an irresistible impulse—irresistible impulses not being recognized by law.

The position thus taken is perhaps the strongest and most satisfactory of the many which lawyers have assumed in regard to what shall be the test of responsibility. It is certainly better than that of Lord Justice Bramwell, who made the capacity of fear the test of responsibility. It is better, too, than that laid down by Baron Bramwell in the Dove trial. Here it was asserted that if the crime is the result of a series of persistent mental efforts uniformly tending to a certain end, the responsibility is presumed to be complete. But though this test, evidenced by capacity for moral distinctions and appreciation of consequences, has superior merits, it will, we believe, strike medical men at least, as being notably defective in some points.

We may premise that these points are the following: It does not recognize a certain form of disease which is known as volitional insanity, or insanity of the will. Then, it assumes that the fact of a previous condition of insanity is not necessarily to be taken into consideration in estimating the responsibility for a crime; and it consequently makes the value of expert testimony comparatively slight. Furthermore, it does not recognize the fact that the taint of insanity throws a doubt over the responsibility of the person affected, as regards all his actions; and that the existence of such taint ought to lessen responsibility, without by any means doing away with it.

The question of the propriety of recognizing the existence and importance of volitional insanity was not discussed in Judge Westbrook's charge, and we do not propose to enlarge upon it here. That there is such a diseased condition, and that the sufferers from it should be considered less responsible than the healthy, we cannot doubt.

With regard to the second point—that of the tendency of the test, laid down in the charge by Judge Westbrook, to do away with expert testimony—the present trial furnished an excellent illustration. The judge quite ignored the testimony in summing up the case, and a local journal, in its comments, ventured the opinion that medical expert testimony might always be dispensed with, to the advantage of law and justice. It is, indeed, natural to suppose that if the only question to be determined is the condition of mind at the time of the act, no experts will be needed, or at least their testimony will be often unnecessary, and always very subordinate. To persons acquainted with the many subtle phases of insanity, especially in its incipient stages, and with the difficulty at times of making a correct diagnosis,

the possibility of excluding, or of laying slight stress upon the help of those who have devoted a life to studying mental disease, must seem deplorable.

In regard to the third point, this question at once presents itself: Cannot a person be tainted with insanity, and yet "be able to distinguish between right and wrong at the time of and with respect to the act complained of;" and, further, is a person thus tainted with insanity, though apparently able at times to make moral distinctions, to be considered as responsible for his actions as a sane person? The law says he may be; but to medical men this view must appear wrong and liable to cause injustice. A person mentally diseased may be partially accountable for his actions, but never fully so. Such statement is based on the fact that it will always be impossible to say where the mental alienation ends in any given case; at what faculties and to what subjects it is limited, or on exactly what motives it has an influence. This is a view which has been very ably advocated by Dr. N. W. Wright; and, if true, it shows conclusively a defect, or at least an incompleteness, in the test laid down by Judge Westbrook. There is no recognition in this test that a man's responsibility should always be considered less when his mind is diseased. According to it, the man is either sane and a murderer, or insane and innocent. But there is a position between these two extremes. To illustrate further: a man may appear to have done a murder knowingly and deliberately, but it may subsequently be proved that he had been subject to delusions, in the scientific meaning of the word, and had been insane at certain times or on certain topics. In this case his responsibility should be considered less, and he should not be condemned for murder in the first degree, whatever his apparent frame of mind when the act was committed. This proposition will, we believe, be indorsed by most medical men. It follows from it that medical expert testimony is an absolute necessity to securing the ends of justice.

Though not entirely pertinent, a very good illustration of the value of expert testimony has been given recently in the Gosling trial in this city. Here was a man suffering from general paralysis of the insane, a form of insanity distinguishable with almost absolute certainty, by competent physicians, even early in the disease. At the same time there was probably nothing but some exaggerations of speech and conduct apparent to uneducated observers; skilled experts were therefore indispensable to forming a correct conclusion in the matter. Unfortunately the case showed, with equal force, the need of change in the way such testimony should be given. There was sufficient money in the case to get "expert testimony" on both sides. It was shown to the jury that the doctors disagreed, and such disagreement always makes a profound impression on the jury, however poor the knowledge of the opposing expert.

A reform is needed here in the method of securing expert testimony, and such reform has been often enough urged in these columns. It is for the lawyers to secure this, however, and it might be well for them to expend some of the energy now applied to enunciating "great principles," and fitting them to the elusive phases of human conduct, in introducing practical measures for securing a better light upon each particular case.

The recent Hughes trial furnishes an instructive lesson upon this matter, for it shows how little the doctor's testimony weighs as now given, and yet how essential medical knowledge is to securing exact justice in cases where mental incapacity is alleged as an excuse for criminal acts.

HOMŒOPATHY IN THE BOSTON CITY HOSPITAL.

A PETITION has been circulated by the homœopaths, praying the Boston city government to grant them representation on the staff of the Boston City Hospital; or, if not this, to furnish them a separate building where homœopathic treatment can be carried out upon a due proportion of the charity cases. A committee of more or less prominent citizens has been appointed to agitate the matter. The homœopaths are buoyant with hope, and there are vague rumors that the present hospital staff has threatened to resign in case the proposed change is made.

We do not know how serious this movement is. If, however, a pure homœopathic practice could be introduced into the Boston City Hospital, and its results placed in comparison with those obtained by regular physicians, nothing more disastrous could happen to the so-called new school.

Such experiment is not new, however, and it is hardly worth while to try it again. At Vienna and at Ann Arbor homœopathic education has been attempted side by side with instruction in scientific medicine, and it has failed. Homœopathic treatment has been tried in the wards of hospitals at St. Petersburg, Vienna, Paris, and other cities, and it has been given up as ineffective. In the present instance the homœopaths express themselves as being quite willing to have a separate building, and if anything is done in the matter, it will probably be the securing another hospital. To this there can be no especial objection, if the taxpayers desire it. The New York City Homœopathic Hospital has turned out to be a harmless institution. Treating, as it does, chiefly chronic and incurable cases, it probably furnishes interesting opportunities to study the natural course of disease. Similar opportunities need not be denied Boston if she wishes them.

Those laymen, however, who interest themselves in clamoring for the rights and proportionate repre-

sentation of special medical schools, ought to remember, in the first place, that homœopathy in its pristine simplicity is no longer practised by intelligent men. There ought to be care taken, therefore, in appointing men to responsible positions simply because they claim to practise by an exclusive dogma, and on such account feel themselves entitled to a representation.

SCHOOL HYGIENE.

At the recent meeting of the Medico-Legal Society, the Chairman of the Committee on School Hygiene, Dr. O'Sullivan, presented an extended report, in which it was shown that very substantial progress had been made regarding the promotion of the sanitary interests of the public schools. Not only was public opinion in favor of the reformatory measures so earnestly advocated by the society in question and by the profession at large, but the Board of Education itself freely admitted the necessities of the situation. The recently appointed Superintendent has stated that the condition of the schools had improved during the past year, and had accounted for the fact on the ground that there had been a closer scrutiny exercised by the Board of Trustees and by the janitors—all of which had been the direct result of public complaints against the sanitary condition of the schools. So far, then, such facts go to show that the chances of necessary legislation are exceedingly good, and that the opposing elements to such an end are either no longer on the school board or have lost their power. The present school bill before the Legislature is calculated to serve the sanitary interests of the schools, and so far appears to have the support of the Commissioners.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, March 10, 1880.

DR. T. E. SATTERTHWAITE, PRESIDENT, IN THE CHAIR.

DR. PEABODY presented three specimens of dissecting aneurism of the aorta. The first was on behalf of a candidate for admission to the Society. The histories were as follows:

A CASE OF MULTIPLE CEREBRAL HEMORRHAGES WITH DISSECTING ANEURISM OF THE AORTA.

CASE I.—J. K——, æt. 56; married; United States; truckman. About 10.30 on the morning of February 24th, while engaged in his business, the patient complained of not feeling well, and went into an office to sit down. Soon after, he became unconscious, and, when an ambulance was sent for, was found by the surgeon in charge to be suffering from paralysis of the left side of the body and of the right side of the face, accompanied by ptosis and dilatation of the pupil. The patient at that time was comatose and exhibited no convulsive symptoms. He was removed to a hospital where, about one o'clock, he was seized with a number of clonico-tonic spasms involving the left side of the face and the left upper extremity only. No other previous history of the patient could be obtained, except that for ten days before his attack he had been drinking to excess.

Upon coming under personal observation at six P.M., about eight hours after the beginning of the seizure, the patient presented the following condition:

The face was flushed. Coma was profound and accompanied by loud stertorous respiration. The conjunctivæ were insensitive. The right pupil was somewhat contracted and insensitive to light. The left pupil was dilated and responded but feebly to stimulus. On the right side there was ptosis. The left upper and lower extremities were the seat of motor paralysis. There were no reflex movements to pricking on either side of the body, nor to tickling the soles of the feet.

The left side of the face and the left upper extremity were in a constant state of clonico-tonic spasm. The convulsive movements began with clonic twitchings in the muscles of the left side of the face, neck, and in the left upper extremity. These lasted but for a few moments, when the tonic spasm began, the head being drawn powerfully to the left and slightly backward, and the jaws firmly set, grinding the teeth together with great violence. At the same time the upper extremity of the affected side became stiff, the forearm being slightly flexed and the fingers clenched into the fist. The face, during these attacks, was somewhat cyanosed. At no time was the left lower extremity involved. The heart-sounds could not be distinguished, owing to the noisy breathing. The pulse was full, strong, and very irregular, and beating 68 to the minute. The radial arteries were thickened. The temperature, taken in the rectum, was 101.8°, and the respirations numbered 22 to the minute. Both legs were slightly œdematous. The urine was suppressed, none flowing on a catheter being passed into the bladder. The patient remained in the same condition, the convulsions occurring every two to three minutes and lasting about a minute each, until the time of his death, which took place at midnight, he having been under observation six hours. Shortly before death the cyanosis became very marked and the pupils dilated.

Diagnosis.—A diagnosis was made of a meningeal or cortical hemorrhage of the right side, involving the motor centres of the face and arm and gradually extending to the base.

Autopsy.—A post-mortem examination was made thirty-five hours after death.

The Brain.—There was marked flattening of the convolutions of the vertex of both hemispheres. The vessels at the base showed a few patches of atheromatous degeneration. The left lateral ventricle contained rather more fluid than is usual, the fluid itself being normal in character. The cortical and medullary parts of the right hemisphere were studded with countless small hemorrhages, varying in size from a pin's head to that of a small chestnut. They were all recent, soft, and not decolorized. The tissue of the hemisphere was everywhere slightly brownish and softened. The corpus striatum and optic thalamus were softer than the other parts. There was a clot, about the size of a dime, in the anterior part of the fourth ventricle, involving the tegmentum of the right crus cerebri.

Thorax.—The pericardium contained about half an ounce of bloody serum. The adventitia of the aorta appeared blackened for a distance of about two inches from the aortic valves, the result of a hemorrhagic extravasation.

The thoracic aorta was found to be very atheromatous and thickened throughout, the ascending portion of the arch being the seat of an aneurismal dilatation. About half an inch above the aortic valves, on the right side of the arch, there was a narrow rent in the intima and media, extending for half an inch in a direction directly upward. Through this opening blood had escaped, dissecting between the layers of the media, over a space of about two inches along the arch, and along the innominate artery to its bifurcation, filling the cavity so formed with clots. At a distance of two inches from the valves, the adherence of the layers of the media had stopped the progress of the dissection in every direction but behind, where the blood had forced its way through, and winding round to the front, had continued its dissection down the whole anterior aspect of the thoracic and abdominal portions of the aorta. The heart was rather large, and the muscular tissue pale. The valves were competent. The right ventricle was somewhat dilated, and on the anterior surface, near the apex, there was an old thickening of the visceral layer of the pericardium.

The Kidneys were about normal in size. The capsule stripped off with some difficulty, leaving a rather granular-looking surface behind. The cortex was thin, and the markings obscure.

The Liver was fatty. The gall-bladder contained two very irregularly shaped black calculi.

Microscopical Examination.—*The Heart.*—The striæ of the muscular tissue had in many places disappeared, the muscular tissue being replaced by fat globules.

The Kidneys.—There was granular degeneration of the epithelium in the cortex, and many hyaline casts in the convoluted and straight tubes. Some of the glomeruli were atrophied and their capsules thickened by an increase in the quantity of the connective tissue.

RUPTURE OF AORTA DISSECTING ANEURISM.

CASE II.—M. B——, æt. 49; Ireland; widow; domestic.

Admitted to Chambers Street Hospital, December 26th, 8.30 A.M. Died 9.20 A.M. of same day. Patient was subjected to unusual excitement on the night of 25th December and on the following morning. While walking in the street about eight o'clock in the morning, she was seen to stagger and fall. She did not lose consciousness at the time, but was unable to speak. By the assistance of a policeman she was able to walk to the station-house—a distance of a few houses. She was then transported in an ambulance to the hospital. She reached the hospital twenty minutes after she fell. At this time she was unconscious, pupils were normal; there was no paralysis; she could swallow; radial pulse was perceptible, but fluttering; surface was warm; face flushed. Respiration was very rapid. Physical examination revealed nothing definite. She was restless, rolling her head and tossing her arms, apparently in pain. She was given whiskey, digitalis, and morphia subcutaneously in small doses. She sank rapidly, and died fifty minutes after admission.

Autopsy.—Five hours after death. I will omit details, which are not essential.

Inspection.—Body well nourished; rigor mortis well marked; slight œdema of both lower extremities.

Diaphragm at normal height.

Thorax.—There were a few old adhesions on both sides. The pericardium was distended with blood, which was measured and found to be ℥xiv. The loose cellular tissue about the origins of the aorta and pulmonary artery was infiltrated with blood.

The ascending aorta was found to be the seat of a small aneurismal dilatation, in which the intima and media together were ruptured in two places. Through these two ruptures the blood had made its way upward and downward between the layers of the media, over a space of about two and a half inches. One of the two ruptures mentioned above begins, as is well seen in the specimen, at a point between the origin of the left subclavian and left common carotid artery. It passes in a spiral direction entirely around the aorta, terminating about an inch nearer the heart than it began. Three-quarters of an inch above this rupture, and parallel with it, is seen another which is about an inch long. The thoracic aorta throughout has many patches of atheroma which are especially numerous in the region of the ruptures. The heart was normal—the valves being competent. On injecting the aorta from below it was found that the water injected oozed gently from several minute openings in the pericardium covering the aorta about an inch above the heart on its anterior aspect. There was no large opening discovered.

The Kidneys were normal in appearance to the naked eye. Examined by the microscope, numerous hyaline casts were found in the straight tubes.

The Liver showed a marked pigmentation about the central vessels, but was otherwise normal. All the other organs, including the brain, were normal, except that there were several small patches of atheroma in the vessels forming the circle of Willis.

CASE III.—J. G——, æt. 50; Ireland; laborer. The patient confesses to having been a moderate drinker. Had gonorrhœa and chancre twelve years ago, but gives no history of constitutional syphilis. Has had frequent attacks of chills and fever and rheumatism. He was admitted to the New York Hospital October 16, 1879. On the morning of this day, while walking in the street, he was seized with severe pain in the abdomen, choking sensation in the throat, became dizzy and fell unconscious. After regaining consciousness he had several copious evacuations from his bowels. On admission he was conscious, greatly prostrated, suffering severe abdominal pain. His surface was cool, pulse 97 and almost imperceptible at the wrist. Respiration quick and shallow, temperature in rectum 98°. Heart-sounds were feeble, but there was no murmur. He soon complained of pain in the præcordial region. There was slight œdema of the ankles. During the thirty hours following his admission he had total suppression of urine, and complained of pain in the lumbar region in addition to his other pains. During this time he was treated by stimulants, hot-air bath, cupping the lumbar region, poultices to the same part, and digitalis. After the lapse of this time he passed half an ounce of urine, which was loaded with albumen and contained hyaline and granular casts, blood, pus, and renal epithelium. His temperature rose to 101°, but in all other respects he continued profoundly collapsed. Two days after admission he passed several ounces of urine, which yielded much the same result upon examination as the first specimen. On the 18th October a soft, blowing, double murmur was heard all over the præcordium. At midnight he asked for

a glass of water, took it, and suddenly fell back dead, having been under observation two days and a half.

Autopsy twelve hours after death.

Inspection.—Body well nourished; rigor mortis well marked; symmetrical, old, roundish cicatrices on both shins; no œdema.

Brain showed thickened arteries at base. The lateral ventricles contained rather more serum than usual, but brain was otherwise normal.

Diaphragm was at the normal level.

Thorax.—The tissues of the anterior mediastinum were filled with blood. Nothing uncommon about the lungs, except that they were bound down by old adhesions, were congested and œdematous. The *pericardium* was enormously distended with blood, which was partly fluid, partly clotted. It measured 820 cubic centimetres.

Heart and great vessels.—Just above the heart the aorta was dilated slightly, forming a sac about as large as the egg of a goose. In the wall of this sac, about one and a half inches above the valve, was found a rupture into the pericardium just large enough to admit a No. 3 French sound. On opening the aorta from below it was found that this small opening into the pericardium was only in the outer wall of a dissecting aneurism, which extends downward to the heart and upward as high as the origin of the innominate artery. The intima and inner layers of the media were found to be torn completely through over the entire circumference of the aorta, on a level about half an inch above the aortic valve. Through this opening the blood had infiltrated the loose connective tissue in the neighborhood. Muscular tissue of heart was fatty; valves were normal.

The *kidneys* showed the lesions of chronic diffuse nephritis.

Remarks.—In all of these cases the intima is thickened; there are many patches of atheroma in it, and the sac of the dissecting aneurism in each case is not made up of the external coat, as Laennec describes it, but of some of the layers of media, together with the adventitia, as was first described by Peacock in England. The rupture then, in these cases, is really into the tissue of the media itself.

DERMOID CYST OF OVARY.

Dr. C. C. Lee presented a specimen for a candidate, after which he exhibited a dermoid cyst of the ovary, which was removed by operation with antiseptic precautions. The patient was a woman forty-one years old, who was admitted to the Woman's Hospital with a tumor the size of the fœtal head, in the right iliac region. It grew quite rapidly from the size of a lemon to the above dimensions. The patient desired its removal merely because it was a tumor. The clinical history was that of ovarian tumor, and a diagnosis was made accordingly. The patient recovered without a bad symptom. On removal, the tumor was found to be a dermoid cyst. He did not present it for any interest which it possessed in itself, but simply as belonging to a case which illustrated, in a marked manner, the impunity with which operations of the sort could be performed when antiseptics were used. Before carbolic acid had been employed in that manner it would have been thought entirely unwarrantable for any surgeon to remove an abdominal tumor and thus risk the patient's life, when the said tumor did not cause any injury to the general health. He thought the case illustrated, in a very marked degree, the benefits of the antiseptic treatment.

RECURRENT ORBITAL TUMOR.

Dr. C. S. Bull presented a recurrent orbital tumor with the view of adding to the history of a specimen previously presented to the Society. The eye was first enucleated for sarcoma of the choroid, July 7, 1879. Patient was a woman, æt. 26. At that time it was noticed that the growth involved the optic nerve, and at the time of the enucleation a piece of the nerve was pulled out of the optic foramen and excised. This proved to be infiltrated with the same growth.

On August 27, 1879, it was noticed that the orbit was refilling beneath the conjunctiva and bulging the latter forward.

On October 30, 1879, the tumor had grown to an alarming degree. The whole orbit was filled by the neoplasm, which protrudes through the widely-distended lids for a distance of two inches beyond the orbital margin. The skin of the forehead, temple, and cheek were very much swollen, probably owing to the great pressure exercised by the tumor. The interpalpebral aperture was filled almost to bursting. There was constant, severe, gnawing pain in the orbit and head. The surface of the neoplasm bled on the slightest provocation and discharged fetid pus. The external canthus was split, the conjunctiva divided along the junction of palpebral with retrotarsal conjunctiva, and then by means of strabismus hooks, scissors, and the finger, the adhesions of the tumor to the orbital walls were broken up. These adhesions were none of them firm except near the apex of the orbit. After a thorough removal from the orbit the same gray appearance of infiltrated tissue was seen presenting in the optic foramen and sphenoidal fissure. The upper orbital margin at both canthi was found diseased, the periosteum being thickened and infiltrated. This was scraped clean as far as the disease could be traced, the orbit thoroughly washed out with carbolic acid, and a twenty grain solution of zinc chloride applied. The orbit was then filled with carbolized sponge and covered by carbolized dressings and a tight bandage. All went well, and the orbit filled by granulating from the bottom, until December 3, 1879, when a suspicious nodular swelling in the skin of the upper lid appeared, at the external angle. This was somewhat elastic, was attached to the bone, and grew forward and inward toward the median line.

December 27th.—The growth in the lid was removed with the entire outer half of the lid. The periosteum was found extensively diseased, and hence the external canthus was split for the distance of one and a half inch toward the temple, the periosteum carefully removed from orbital margin, roof of orbit, outer wall and floor, for a distance of nearly half an inch, and then by gouge and scraper the superficial layers of bone-tissue removed, until apparently healthy bone was reached. The wound was carefully cleansed with carbolic acid, and dressed with carbolized lint and borated cotton and pads. The wound healed by first intention, and the case did well from the start. The orbit has entirely filled up, and the opening is covered by skin.

March 8, 1880.—Patient presents herself with a large nodule of inner end of upper lid, which involves skin of side of nose and lower lid, and a second distinct nodule in the outer third of lower lid.

At no time have there been any head symptoms, nor any infiltration of any of the neighboring glands.

CONGENITAL OPENING BETWEEN THE TWO VENTRICLES OF THE HEART.

Dr. Ridlon presented a specimen showing a congenital opening between the two ventricles of the heart. On the left side there seemed to be a valvular opening into the right ventricle. It was situated at the summit of the ventricular septum. The left ventricle was hypertrophied.

Dr. Wyeth asked concerning the relative frequency of this abnormality.

Dr. Putnam Jacobi said that it came second to stenosis of the pulmonary aorta, upon which it depended.

Dr. Wyeth thought that the most frequent form of communication between the two sides of the heart in the adult was that which resulted from failure of closure of the foramen ovale.

FIBRINOUS PERICARDITIS AND PLEURITIS—INSUFFICIENCY OF MITRAL AND AORTIC VALVES—CIRRHOSIS OF LIVER (HOUSE'S PNEUMONIA).

Dr. Ridlon presented a second specimen, which was one of fibrinous pericarditis, and had the following history:

Caroline K——, æt. 55; Germany; widow; nurse; admitted to St. Luke's Hospital February 27, 1880, Service of Dr. Wheelock.

On admission, patient was found to be nearly moribund. Respiration difficult and painful, 52 to the minute; pulse feeble, 104; face and hands cyanotic. Two days previous to admission she had been exposed to cold, had a chill, and felt great prostration, which was followed by fever and some cough; there was little expectoration. She gave the history of rheumatic attacks which occurred annually since 1850. Has, to her knowledge, had heart disease for the last twelve years. Physical examination showed pneumonia at left apex. No heart lesion could be made out, as the patient groaned with every breath. Examination of urine gave: specific gravity, 1026; acid; albumen, 20 per cent.; no casts. Death occurred at 11.50 P.M.

Autopsy fifty-eight hours after death.

Pericardium contained eight ounces of turbid serum. Both parietal and visceral layers of the pericardium were covered with a recent fibrinous exudation, forming a false membrane, which could readily be peeled off. The heart was slightly hypertrophied. There was calcification and insufficiency of both aortic and mitral valves. The left pleural cavity contained twenty ounces of turbid serum and was lined up to the level of the fourth rib with the same new false membrane as was found on the pericardium. There were no old adhesions between the visceral and parietal pleura. Pneumonic consolidation existed in the upper and posterior portions of the upper lobe of left lung. On the right side the pleura was normal, and the lung only showed some hypostatic congestion. The *liver* was of the nutmeg variety, and weighed 3¼ lbs. *Spleen* congested and feeble. *Kidneys* moderately congested; otherwise normal (to the eye).

Dr. Carpenter asked if the kidneys had been examined microscopically.

Dr. Ridlon answered in the negative, and Dr. Satterthwaite remarked that there were no evidences of kidney disease at post-mortem, and that the presence of albumen was probably a mere functional disturbance. Persistent lowness of specific gravity was a more important diagnostic symptom of organic kidney disease than albuminuria.

Dr. Putnam Jacobi believed that in the production of albuminuria it was necessary that the uriniferous tubes should be denuded of their epithelium.

Dr. Satterthwaite could not understand, if this were always the case, why patients who had albuminuria could so frequently become healthy again.

Dr. Putnam Jacobi replied that the denudation might be confined to the larger tubes, in which case the disease was curable.

Dr. Hinton referred to the fact that certain articles of food produced albuminuria in perfectly healthy individuals.

Dr. Peaslee remarked that milk will produce albuminuria in some healthy persons. In regard to the question of desquamation of epithelium as a necessary preliminary to albuminuria, he referred to the following significant fact. A patient was brought in the Chambers Street Hospital suffering from injury of the head from which he shortly afterward died. His urine during life was found loaded with albumen, but a careful examination of the kidneys afterward showed them to be absolutely healthy.

Dr. Satterthwaite alluded to the case of well-known professional wrestlers of this city presumed to be in perfect health, who would always have albumen in their urine after vigorous physical exercise, and also to the case of a gentleman who had the same thing occur as the result of extra mental efforts. In both cases the albuminuria would disappear when rest was taken.

Dr. Putnam Jacobi alluded in this connection to experiments which had been made upon fifty healthy German soldiers. In a certain number albuminuria was found after fatiguing exercise.

Dr. Sell remarked that very anæmic persons have functional albuminuria, the latter disappearing when health is restored.

EPITHELIOMA OF LEG—AMPUTATION.

Dr. Elizabeth M. Cushier presented a specimen of epithelioma of the leg, with the following history:

Mrs. B——, native of Canada, aged 32 years; family history good. Patient is married and has had two children, both healthy. Ten months since had an abortion at six weeks; no assignable cause. Is now pregnant, three months advanced. General health has always been good. Present trouble dates from about seven years since, when she began to have pain in right leg. The pain was at this time referred to upper and anterior part of leg; it was unattended by any redness or swelling, and was always worse at night. Two or three years later a spot of discoloration was observed at about the middle of the leg, at inner side of tibia, and this began to be at times painful. There was never any severe pain, however, until two and a half years since. At about this time patient struck her leg in getting out of a carriage. This did not give her immediate trouble, but soon after there began to be intense pain at one point over tibia, at site of present lesion. During the entire winter the patient had no rest, and for several weeks morphine was given to control the pain. In the May following the patient noticed, for the first time, a swelling over the tibia at the point above mentioned. It was not an even swelling, but was made up of "little lumps." From the time of the appearance of the swelling the pain was not so intense, although still at times severe. The swelling and redness continued to increase, and constant treatment in the form of applications was resorted to without relief. During the following year there was but little change, excepting the increase in size, until

last May, when the surface opened. The ulceration spread at first rather slowly; the surface of the ulcerated portion remained quite flat, and the discharge was but slight and watery. In July last patient noticed that "proud flesh" began to form, and projected above the level of the skin. About one month before coming under observation the spot began to increase more rapidly in size, and at the same time began to heal in the centre. When patient was first seen on February 13th she looked in excellent health, and gave no evidence of constitutional disturbance. Upon examining the leg there was no swelling, nor any enlargement of the veins. Directly over the middle of the tibia an open surface was presented, measuring two inches in diameter. It was circular in form, the edges were slightly excoriated, and the entire centre was filled with large papillomatous growths, which, although crowded together, were quite separable from each other. They were pale in color, firm and painless to the touch, and did not bleed readily upon handling. There was a very slight discharge, and this was from the periphery of the mass. The whole was quite immovable upon the underlying bone. At the lower border, and separated from the main lesion by a narrow isthmus of integument was a small ulcerated spot about the size of a pea. This spot did not present any of the papillæ above mentioned. The integument of the limb was of a purplish-red hue for some little distance from the growth. The shaft of the tibia was sensitive as high as the garter, and at about two and a half inches from the head of the bone there was a small sensitive nodule.

While from the history and appearance of the growth, I believed it could be limited to either one of specific origin or to an epithelial new formation, I was very doubtful as to which of these pathological conditions it belonged. I then asked Dr. R. T. Weir to see the patient with me. Upon examining the patient, Dr. Weir also expressed a doubt as to the character of the lesion, and while inclined to regard it as an epithelioma, was still unwilling to pronounce a definite opinion without a microscopic examination. I accordingly removed some of the papillæ above described, and, after hardening them, made the sections which are presented this evening. These sections show irregularly cylindrical masses of large epithelial cells dipping down to the base of the portion removed; from these cylinders were side processes containing the well-known horny bodies. The stroma surrounding these masses was filled with granulation-cells. The section was shown to Dr. Weir and also to Dr. Adler, and was unhesitatingly pronounced by them to belong only to an epithelioma. Drs. D. Stimson and Peabody, who also saw the specimen, expressed the same opinion. It was suggested, while waiting, to place the patient under treatment for specific disease, but, with the possibility of a near operation, it was decided to await the revelation of the microscope before subjecting her to such depressing medication. All the more as I had been informed that the patient had for a long time taken large doses of the potass. iodide.

During the few weeks that the patient was awaiting a decision, the growth rapidly increased at its periphery, and began as rapidly to cicatrize in its centre. The newly ulcerated portion was immediately filled with the above-mentioned excrescences, as was now also the small ulcerated spot which at the same time increased in size.

The undoubted malignity of the growth, its rapid increase within a few weeks, and the hope of preventing its recurrence by an early and complete removal, led to an amputation being advised, and this was readily acceded to on account of the suffering which had been endured, and the comparative uselessness of the limb. The operation was accordingly made, with the kind assistance of Dr. Weir, on Friday last. The antiseptic method was completely carried out, and the progress of the wound has been most satisfactory.

The main point of interest in the case rests upon the question of diagnosis. This, in the opinion of several well-known and experienced clinicians, could not be decided upon without a microscopic examination. All who saw the growth agreed that it presented many of the characters of a specific lesion. One of the points mentioned in this connection attracted my attention, and led me to consult authorities with reference to it. This was, that in epithelial growths there was not the tendency to cicatrization in the centre at the same time that an increase took place at the periphery. I find, however, that both Tiesch and Neumann mention a variety of epithelioma which is characterized by this tendency. As a result of the casting off of the epithelial elements, after which the connective tissue, instead of remaining highly vascularized and continuing to exist, as in some cases, as granulation tissue, becomes less vascular and forms cicatrices.

Dr. Satterthwaite stated that in the flat epithelioma of the Germans, of which this seemed to be a variety, it was the rule that cicatrization took place after cauterization. In connection with the general subject of cicatrization in carcinoma he referred to a case of epithelioma of the tongue under charge of Dr. L. A. Stimson, in which for a time the disease not only seemed to be arrested, but to show a tendency to heal under large doses of the iodide of potassium. Subsequently it extended, continued to exhibit the evidences of epithelioma, and was removed by Dr. Stimson.

Dr. Wyeth had seen a case precisely similar to Dr. Cushier's, while on a recent visit to Baltimore. Dr. Smith, the surgeon in charge, had determined on amputation.

Dr. Ripley was of the opinion that the amputation in Dr. Cushier's case was somewhat premature. In connection with a possible escape from such a radical measure of treatment, he referred to Dr. Robinson's case of epithelioma of the larynx, which had recovered entirely. In that particular instance the growth had been examined by a number of expert microscopists, who agreed that it was epithelioma, and afterward the growth had entirely disappeared and the parts had remained in a perfectly healthy condition for many months. Dr. Robinson's case had been fully reported to the Society on previous occasions.

Dr. Cushier remarked that the undoubted malignity of the growth, the utter uselessness of further treatment—the patient having been thoroughly saturated with iodide of potassium, and suffering great pain, made amputation necessary.

Dr. Putnam-Jacobi observed that the presence of epithelial cylinders in the growth would be an extraordinary anomaly in syphilitic ulceration.

Dr. Satterthwaite remarked that they were hardly interchangeable conditions, as syphilis was a connective-tissue growth by which epithelioma was epithelial in its nature. On the question of the possibility of carcinoma being cured by operation, Dr. Satterthwaite referred to a case of scirrhous cancer of the breast, of which he has records, which had not returned for seven years; Dr. Ripley, to an epithelioma of cervix uteri removed by Dr. Jacobi, and which

had not reappeared four years after the operation, and Dr Carpenter, to a case of cancer of the breast amputated four years ago without return.

THE PHILADELPHIA ACADEMY OF NATURAL SCIENCES.

Regular Meeting.

A NEW FLUID FOR THE PREPARATION OF ANIMAL AND VEGETABLE TISSUES.

At a late meeting Professor Barlseck called attention to a subject of much practical importance to naturalists, physicians, and scientific men generally. The German papers had a short time ago brought to notice the fact that Mr. Wickersheimer, of the University of Berlin, had invented a fluid for the preparation of animal and vegetable tissues, which surpassed anything before known in its power of preserving the color, form, and elasticity of specimens treated with it. It was reported that the fluid was either injected into the veins of the body to be preserved, or the entire object was immersed in it. After having been taken out of the fluid and dried, the elasticity of the tissue and flexibility of the joints were secured.

A number of skeletons were shown, in which all the complicated movements could be executed. Some of the skeletons exhibited beautifully the combined movements of the chest, larynx, and other parts engaged in the mechanism of breathing. Several skeletons of snakes, which had been treated with the fluid more than a year previously, permitted of undulatory and spiral movements. Lungs thus prepared may, even after years, be inflated by means of bellows. Such old lungs were seen to swell to ten times their size in the collapsed state; the lobes became distinct, the brown color gradually changed into red, and the whole organ appeared as if taken from a fresh body. Sections of delicate tissues, morbid formations which have been removed by an operation, will appear after months as if in a fresh state, and may thus be preserved for future study. All sorts of vegetable organisms may also be preserved in this fluid. A colony of exquisite fresh-water algæ, which had been in the fluid for a year, appeared to be growing in the water.

The Prussian government had purchased this valuable discovery, and the Minister of Instruction had published it in his official organ for the benefit of the scientific world. The formula for the preparation of the fluid is as follows: in 3,000 grammes of boiling water dissolve alum, 100 grammes; common salt, 25 grammes; saltpetre, 12 grammes; potash (kali carbonicum), 60 grammes; arsenious acid, 10 grammes. After cooling and filtering, add to every ten litres of the solution four litres of glycerine and one litre of methylic alcohol.

The method of application differs according to the nature of the objects to be preserved. Anatomical preparations that are to be preserved dry are immersed in the fluid from six to twelve days, according to their size, then taken out and dried in the open air. Hollow organs, such as the lungs, etc., must be filled with the preserving fluid, then laid in a vessel containing the same liquid, and afterward distended with air and dried. Smaller animals, such as crabs, beetles, lizards, frogs, etc., if the natural colors are to be preserved unchanged, are not to be dried, but put immediately into the preparation. The same fluid may be used for the purpose of preserving human bodies during transportation, or even for more permanent embalming.

TAPE WORM IN THE LUNGS.

In the course of Dr Henry C Chapman's remarks on certain anatomical points observed by him while dissecting animals which had recently died in the Philadelphia Zoological Garden, he described the lungs and liver of a monkey, which were completely disintegrated and filled with cysts, produced by an immature form of tape-worm. The states of development of these parasites in various animals were described at length.

Correspondence.

THE SALE OF DIPLOMAS.

The following correspondence explains itself:

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
WASHINGTON, March 31, 1880.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Your co-operation in fulfilling the objects of the enclosed circular-letter of March 26 (respecting the "sale of diplomas," issued by fraudulent corporations in this country to subjects of foreign powers), is earnestly desired.

I shall be happy to receive any suggestions that you will be good enough to make, as well as any publications on the topic. I am, sir, very respectfully,

Your obedient servant, JOHN EATON,
U. S. Commissioner of Education.

Mr. Evarts to Mr. Schurz.

DEPARTMENT OF STATE,
WASHINGTON, March 12, 1880.

SIR:—I have the honor to transmit herewith for your information a copy of a dispatch (No. 87) of the 24 ultimo, from Mr. White, the Minister of the United States at Berlin, in relation to spurious diplomas issued by a so-called American University at Philadelphia. I beg to express the hope that it will be found practicable to devise measures, through the Bureau of Education or otherwise, for the effectual suppression of the practice of issuing spurious diplomas at Philadelphia, which is proving so injurious to the reputation of this country with respect to higher education. I have the honor to be, sir,

Your obedient servant,
WM. M. EVARTS.

The Honorable CARL SCHURZ,
Secretary of the Interior.

Mr. White to Mr. Evarts.

LEGATION OF THE UNITED STATES,
BERLIN, February 2, 1880.

SIR:—I regret to state that there seems to be a revival here of the sale of diplomas purporting to be issued by an institution of learning in the United States.

Some weeks since a Mr. Pappenheim brought me a diploma, engrossed on parchment in very handsome style, and issued nominally by "the American University at Philadelphia," conferring the degree of doctor of medicine upon one Christopher Schuetz, living, as I understand it, at Leipzig. It would appear that the diploma was offered to Schuetz upon condition of his paying a sum of money for it. It bears the signatures of a number of persons claiming

to be professors in the aforesaid university, at the head of them being the signature of "John Buchanan, M.D." Schnetz desired the Legation to give him a declaration of its genuineness and value, which I refused to do. One peculiar feature of the diploma was that, although evidently entirely new and recently issued, it was dated 1872.

About ten days since another and more serious case was brought to my notice. The judicial authorities at Prenzlau forwarded a copy (which I enclose) of a diploma issued by the same alleged institution to Paul Christoph Erdmann Volland, and signed by a faculty at the head of which appears the same name of "John Buchanan, M.D." The authorities at Prenzlau asked the Legation regarding the genuineness of the diploma and the standing of the institution, it being with them a question whether Volland could be allowed to practice his profession under such a diploma.

After looking through the correspondence on record in this Legation (a memorandum of which is inclosed), and seeking in vain for the name of the institution in the list of colleges and universities published by the Bureau of Education in the Department of the Interior, at Washington, my answer was unfavorable to Volland's claim.

From the correspondence above referred to, I find that attempts have been made by the Legislature of Pennsylvania for the suppression of this nuisance; but that, after all, it is a question whether these attempts have been successful, and whether the institution has not still a legal existence. This being the case, I would respectfully suggest that the matter be brought to the notice of the Commissioner of Education in the Department of the Interior, at Washington, and that he forward me any documents or information in his possession regarding the subject.

You will observe among the papers accompanying the diploma of Volland something much more serious than the diploma itself, and that is the authentication of it by Philip A. Cregar or Gregar, notary public of Philadelphia; and I bring this matter especially to the notice of the Department, hoping that something may be done to prevent officials in Pennsylvania lending themselves to what is undoubtedly a fraud, whether under the forms of law or not.

That such cases as these have brought disgrace upon the American system of advanced education, and upon the American name in general, is certain. This has been recently revealed to me incidentally in a curious way: in a very successful play now running at the Royal Theatre in this city, a play written, strangely enough, by a judge of one of the highest tribunals in the Empire, one of the characters, in casting a reflection upon another who is dignified with the title of doctor, declares a belief that the latter had simply bought his degree in America; and in a recent novel, by a popular author here, the scoundrel of the book, having escaped justice in Germany, goes to America, and is at last advices very comfortably settled and practising medicine with a sham diploma which he has bought for money.

All this, of course, is of no especial significance in this case, save as it shows that the fair fame of our country has been, and can be, injured in the minds of a large number of people, even by such contemptible transactions as those herein referred to.

I have the honor to be, sir,

Your obedient servant,

AND. D. WHITE.

The Hon. WILLIAM M. EVARTS,
Secretary of State, etc.

REMARKS ON

THE BROMIDE OF ETHYL, OR HYDROBROMIC ETHER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In criticising this admirably-written paper (read before the New York Academy of Medicine, March 18, 1880), by so distinguished a surgeon and able writer as my friend Dr. Sims, I feel I am undertaking a very delicate and difficult task, and yet I consider it to be a duty which I cannot lay aside, as part of the responsibility of the reintroduction of the hydrobromic ether as an anæsthetic is due to me.

In several careful readings of the report (published in the MEDICAL RECORD, New York, April 3, 1880), my impressions were as follows:

First, that after the patient had been relieved, "the uterus replaced, the cervical canal enlarged, with menstruation normal in quantity and painless" (p. 362), no more fault could be found with the ovary or the uterus which received the menstrual fluid; the epileptic seizures were, therefore, not due to the diseased ovary, but were more likely caused by anæmia of the brain, which fact numerous experiments on animals have proven to be the case. There is every reason also, on clinical grounds, to believe that in the epileptic paroxysm the brain is successively anæmic and congested. Again, if these epileptic attacks had been entirely due to the diseased ovary, pressure on it or them would have produced these convulsions, or, on the other hand, would have checked them. There was, so far as we have noticed, no test of this kind instituted.

Second, we have always considered "Battey's operation" one of the most barbarous and unjustifiable in surgery, and it is well known that several deaths have followed the abdominal incision for removal of the ovaries.

Third, an operation of such magnitude and of so much importance to the life of the patient, should not have been performed upon a confirmed epileptic.

Fourth, before performing this hazardous operation the urine should have been most carefully examined by various tests and by the microscope. It is now a well-recognized condition that in disease of the kidneys anæsthetics almost invariably produce coma and death. In the post-mortem examination of the kidneys of the patient, in the examination by the microscope, "there was a slight increase of the interstitial connective tissue, and many of the convoluted tubules showed swollen and coarsely granular epithelia and considerable narrowed central calibre, a characteristic feature of acute catarrhal nephritis."

Fifth, no laxative or purgative medicine is at all justifiable or even allowable on the day of the operation, or soon after the operation of extirpation of the ovary; and we know of one case in which everything was going on well after an operation for ovariotomy, when an officious neighbor called to see the case, and the patient stated that she had considerable pain in her stomach and bowels, and the friend advised a dose of castor oil, which the nurse gave without consulting the doctor. It operated, and the patient forthwith passed into a state of collapse and died. In three cases of ovariotomy in which I assisted the late Dr. Washington Atlee, he invariably shut the bowels up by means of McMunn's elixir of opium, and never disturbed them for days, and had the patients so strictly watched that no outside interference was possible. Now, Dr. Sims's patient "took three drachms and fourteen grains of Rochelle salts at 8.30

a.m. on the morning of the operation, the food or stimulants given not tasted. It operated freely twice before 11 o'clock a.m., and no more till 7 p.m., about two hours after the operation." She then had six thin, brownish, watery discharges from the bowels between 7 and 11 p.m.—not large, but attended with tenesmus, and the last with a little mucus. At 12.15, 2.40, and at 6 and 7 next morning there were other thin, watery, brown discharges with tenesmus and a little mucus, and the patient wanted the bed pan under the pelvis constantly." "Thus we see that between 7 p.m. and 7 the next morning there were no less than ten watery, not profuse, but exhausting evacuations, over which opiates and astringents did not exercise the least influence."

Dr. Nast, one of the physicians who made the post-mortem, says: "A few hours before death there were several (two or three) large, involuntary movements from the bowels, such as she had previously had—dirty, thin water, with the disagreeable ethyl odor. In the post-mortem "the lower portion of the ileum and colon were black and congested, and altogether presented an appearance far from a normal healthy one."

In all the operations performed by Dr. Levis, Pancoast, Samuel W. Gross, and myself there has not been one single instance in which there has been the slightest disturbance of the bowels, not even in the case of mine reported by Dr. Sims, or in other protracted operations, such as amputations, resections, etc.

Sixth, it will also be noticed that in the report of the post-mortem no mention is made of the injury of the bromine, which was not free, on the mucous membrane of the throat and lungs referred to by Dr. Squibb. There is absolutely nothing stated concerning the appearance of the brain, when so much importance is given to the "pain in the head," and yet up to 7.45 of the morning of her death there was no coma, she being perfectly conscious when spoken to at 6.40. Her convulsions were truly epileptiform in character from the drain upon her system by the loss of blood, and the exhaustive diarrhœa causing the most positive anæmia of the brain, with the superadded inflammation of the colon and ileum, as was proven by the post mortem.

I place on record two post-mortems of animals killed by almost entire exclusion of air and by crowding the hydrobromic ether upon them, and showing the peculiar appearances of the parts.

The late Dr. Thomas Nunnelly* placed "a cat in a six hundred cubic inch jar in which there was one drachm of hydrobromic ether. He absolutely did not move a muscle, but gradually sunk down head foremost to the bottom of the jar, and in one minute he was perfectly insensible. The respiration became laborious, then slower, and in fifteen minutes it altogether ceased. In twenty-five minutes he was removed from the jar, which still smelled very strong of the ether."

"*Post-mortem examination* immediately.—Muscles quite flaccid. On dividing the phrenic nerves the diaphragm moved slightly. Chest: lungs crimson in color and much collapsed; pulmonary veins very full; bronchial membranes pale and dry; heart, both auricle and ventricle, on the right side, as full as possible; the venæ cavæ also excessively distended; the left auricle also very much distended, but the left ventricle was firmly contracted and empty; the proper vessels of the heart were not much filled; the blood was alike dark on both sides. Head: sinuses filled, the pia mater congested, as was the brain, but not in a corresponding degree; its substance was serous, and there was little fluid in the ventricles."

The following experiments were made before the class of the Pennsylvania Dental College by me with hydrobromic ether to show that if no atmospheric air were allowed to enter the lungs with the ether inhaled, both man and animals must die. I then produced profound anæsthesia in a pigeon and a dog. I informed the class that we would so exclude the air from the rabbit that we would kill it, as an evidence that caution must be employed with all agents that would produce such an amount of insensibility. It will be noticed that the post-mortem agrees with that of Mr. Nunnelly. The eye was open, bright, and pupils dilated, no evidence of any redness or congestion about the cornea, and yet the animal had inhaled over an ounce of the ether. There were no convulsions, no great rapidity of pulse or action of the heart, the animal sinking into a lifeless mass. No means were taken to resuscitate it.

Post-mortem. The right side of the heart was found engorged with dark venous blood; the left side very much contracted and empty. The lungs very slightly congested at their base—not enough to have had any effect in causing death. The kidneys were much congested with venous blood. The brain was entirely free from blood, not even the puncta vasculosa being seen, but at the Torcular Herophili was found a large drop of dark blood.

Much importance is given to the retained odor of the hydrobromic ether; but this is a common occurrence, as in any operations of long duration, when ordinary ether has been employed, the odor is noticed for several days, not only by the patient, but by his friends.

The subject of the injurious influence of the decomposed hydrobromic ether has been dwelt upon, and the injurious or poisonous effect of the bromine as stated, by one of the physicians who took part in the discussion. Now, this bromide of ethyl is termed a loosely molecular article, is decomposed very easily, much more so than bromides of ordinary bases which act as salts, and are eliminated as such. Now we know, from numerous practical experiments, both on animals and man, that hydrobromic ether is eliminated from the skin, kidneys, and lungs not at all decomposed, and has no special irritating effects either on the stomach or intestines of man or animals. When animals are killed by hydrobromic ether, there is no irritation about the eyes, nose, or mouth. In certain cases this ether exerts a beneficial influence on irritation of the intestines; for instance, in the colic which sometimes affects children, and in the pain of nervous dyspepsia and headache. Again, instead of causing convulsions it checks them; it is also useful in delirium and acute mania. The whole amount of hydrobromic ether employed was two ounces, in drachm doses, covering the time of one hour and a half. Part of the ether was, no doubt, left on the cloth or napkin, and part of it was lost in the struggles of the patient. Now, the whole amount of bromine was comparatively small in quantity in the hydrobromic acid, into which the bromine is converted by the reaction of potassium bromide and diluted sulphuric acid, with alcohol, into hydrobromic ether.* The amount which the patient re-

* Transactions of the Provincial Association, vol. ix., London, 1849.

* "By the improved method of preparing this agent, the reaction is as follows: potassium bromide and diluted sulphuric acid are heated in a flask. When hydrobromic acid begins to be disengaged, alcohol

ceived, we are sure, did not contain much more of bromine than is contained in the forty to sixty grains of bromide of potassium she was accustomed to take for her epileptic attacks three or four times a day.

Now, what is the true physiological effect of the bromides when taken in large and repeated doses? Acne of various forms, diminished sensibility, followed by complete anæsthesia of the soft palate, uvula, and upper part of the pharynx, when the patient is fully under the bromine influence.

In summing up all the facts in the case, I feel assured that less than two ounces of hydrobromic ether were not the cause of death.

Very truly yours,

LAWRENCE TURNBULL, M.D.

PHILADELPHIA, PA.

NITRITE OF AMYL IN CHLOROFORM NARCOSIS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In reply to the query of Dr. J. J. Boynton, I beg to relate a case illustrating the valuable effect of nitrite of amyl in chloroform narcosis. A young gentleman, on whom I proposed to perform abscission of the prepuce, was placed on the table, the tumbler containing chloroform held over the nose and mouth, and just as I seized the prepuce his face became blanched, respiration ceased, and I found myself in the presence of the most trying ordeal in my experience. No pulse could be detected, the pallor of death deepened, the lower jaw fell, and in the agony of the moment I sprang astride of his body and began artificial respiration, directing my assistant to crush the nitrite of amyl pearls (manufactured by Reichardt) in the handkerchief, which I had fortunately prepared in readiness for the accident. No time was thus lost, but the third time the chest was freed from my pressure a whiff of amyl nitrite seemed to enter the lungs, and the patient's face lost its pallor. A few more inspirations caused suffusion of the skin. As the ruddy hue returned to those pallid lips I felt as if a fearful load had been lifted from me, for I had promised a successful result to a young man who was the only hope and stay of a helpless family, and his sudden death would have been a terrible blow to me personally, while the prejudice against chloroform in this community would have received a strong impetus. If the mouth is shut, air can be made to enter through the nose by artificial respiration, conveying the volatile nitrite of amyl vapor.

While upon this subject, permit me to mention a valuable inhaler, for the knowledge of which I am indebted to Dr. E. S. Gaillard. Press a folded handkerchief, just as it comes from the laundry, into a light tumbler, pour the chloroform upon the handkerchief, and invert the tumbler over nose and mouth. The inequality of the naso-labial space permits the free entrance of air, and the vapor is thus properly diluted. In cases of labor, I am in the habit of removing the tumbler when pain is passing off, and pressing it in an inverted position upon the pillow until it is again necessary. A great saving of chloroform is thus gained, while the delay involved in frequent pouring of fresh chloroform is avoided. Only in surgical operations do I hold the nitrite of amyl globules, wrapped in a handkerchief or cloth, in readiness for crushing.

Very respectfully,

S. BARUCH.

CAMDEN, S. C., April 5, 1880.

is allowed to flow in slowly. The distillate is hydrobromic ether, which requires washing with water and alkaline carbonate, and rectification."—The Advantages and Accidents of Artificial Anæsthesia, by Lawrence Turnbull, M.D., 2d edition, p. 294. Philadelphia: Lindsay & Blakiston, 1879.

ON COMPENSATION FOR THE REGISTRATION OF BIRTHS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—It has been wittily remarked that nothing so thoroughly exasperates the average American politician as the sight of an honest man receiving honest payment for an honest day's work. This, probably, involves a slight exaggeration; but, certainly, there is much in recent "sanitary legislation" to justify the assertion, so far as the relations of legislators to the medical profession are concerned. We must report diseases, and births and deaths, at no little expense of time and convenience, and even money, without one cent of compensation, and at the very great risk, oftentimes, in cases of disease, of destroying the relations which should exist between physician and patient. Worse than all this, we have to undergo the humiliation of seeing certain *quasi* members of our profession, with a cringing servility that is painfully remindful of the days when doctors were slaves, actually begging our legislators to fine us and degrade us in various ways, to the best of their ability, if we refuse compliance with such injustice.

Two things, however, are very certain: first, that no honorable physician, with his eyes open to the nature of the act, will submit to the degradation of acting the part of a voluntary and unpaid spy and informer for the government; and, second, that we will not rest content with any set of laws or officials that attempt to force us to work, without pay, for that employer which is best able to pay for services, to wit: the state. Of the difficulties raised by these two facts, the first can easily be removed by the adoption of the plan recommended by the British Medical Association, for the registration of infectious diseases. The other difficulties are not as easy to manage. It is, however, an encouraging thing to find that a man with the influence of Dr. J. S. Billings, is willing (see his introduction to Buck's Treatise on Hygiene and Public Health) to admit the justice of the claims for compensation to physicians and others who make returns of births and deaths. He does not, however, undertake to propose any mode of compensation, other than to volunteer the statement that it should probably be indirect in its character.

Now all this is wrong, and far from creditable either to the public or to the medical profession. It is no doubt true that with the present temper of the average legislator, inspired by his observation of the timidity with which the average doctor submits to all kinds of petty injustice, it will be found difficult to secure direct and sufficient payment for the work which we are called upon to do, and which should be done if it can be paid for. But it does not seem impossible to effect what is necessary in an indirect way. We are not mercenary, nor disposed to drive an unnecessarily hard bargain with our rich patron (task-master, I might have said), the state. All we want is a recognition of our rights as honest, working men. Let us begin with one thing at a time—

the registration of births. Waiving all discussion of the expediency of removing this duty from the shoulders of the parties most interested, namely, the parents of the children, let us see if there is not some way to compensate the doctor who makes the registration. The act does not require any degree of specially skilled labor—it is mainly clerical. Consequently, the compensation need not be very large, but it should be something tangible. Now I am every year obliged to expend a considerable sum of money for bovine virus. The use of this article is becoming more general as experience of its value increases. If our State Boards of Health do their duty, there will in each State soon be an official vaccine establishment for the production of this virus. Let it be understood, in a legal way, that this virus will be supplied, without cost, on application, to every physician and midwife who makes returns of births, *and to no other persons*, and the causes of discontent which now exist will be in great measure relieved. The reporter of numerous births will need more virus than the reporter of few; so that a certain quality of compensation will thus be secured, while the great principle of honest payment for honest work will be sufficiently vindicated.

HENRY M. LYMAN, M.D.,
Prof. Pr. [illegible] and Surgical Diseases,
Rush Medical College, Chicago.

MEDICINAL SPRING WATERS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—A series of papers upon Medicinal Spring Waters have recently appeared in the columns of the RECORD from the pen of Dr. John C. Peters. They appear as an *expose* of the pretensions of mineral waters in general. It is to be regretted that a physician occupying the prominence of Dr. Peters should have made so gratuitous an attack on medicinal agents which have so long had the confidence of both laity and profession, and which time and familiarity have only more firmly established in their esteem.

As I differ from the doctor in the views expressed, I beg leave to offer a criticism on the papers as far as they have appeared: 1st, in regard to their reference to Saratoga waters; and 2d, as to their scientific worth.

The thirty odd mineral springs of Saratoga are something more than condensed into the space of seventeen lines, of which nearly seven lines are devoted to but one spring. The remainder is occupied with what claims to be an analysis of "Saratoga Water," and a four-line chapter on its uses. I had at first supposed that the analysis presented was an average of the ingredients in all the principal springs, but a closer examination shows it to be the current analysis of the spring which has already monopolized the most of the doctor's space.

As it is a water considered "among the poorest," to use the phrase of an old resident practitioner, and but seldom prescribed by physicians most familiar with the mineral fountains of Saratoga, the injustice of presenting such an analysis is patent. A comparison of its constituents with those of some of the other springs will make this still more apparent.

The amount of chloride of sodium which is attributed to "Saratoga Water" (quantity not stated, presumably a gallon), is 390 grs. The Champion contains over 700 grs., and the Red Spring but 83.5 grs. per gallon, and yet they are reduced to the same level. Other constituents are in like proportion. The amount of bicarbonate of magnesium is stated at 61 grs. against an actual amount in the five principal cathartic springs of 191 grs., 176.4 grs., 149 grs., 122 grs., and 107.9 grs. respectively per gallon.

In addition to the inadvertent misrepresentation in the paper, it must be borne in mind that the springs are extremely various in their properties and applications, and no one spring can be taken as an example of all the rest. This is a fact not so well known among the profession as it should be. Thus, in some of the springs, the cathartic principle is almost lacking, as in the Red Spring, Vichy, or Seltzer. Again, the cathartic is strong, but the alkaline very weak, as in the Hathorn, or, the alkaline predominates over all others, as in the Vichy. In some, the iron is scarcely traceable; in others, as the Columbian or Putnam, the impregnation is so strong that they have to be taken with great care lest violent headache is produced. The sulphur waters introduce still another element of great medicinal value, and certain of the springs are remarkable for diuretic and alterative qualities. It has been said that Saratoga waters all contain the same ingredients. To a certain extent this is true, but therapeutic effects at the various springs are as different as the ingredients are prodigiously diverse in quantity. Moreover, certain of the constituents of some of the springs are totally lacking in others. It is as unfair to make this assertion as to say that all woods or all men are alike.

There are three possible sources of error in the ground taken in the papers: 1st, in assuming that a therapeutic action must admit of a chemical explanation. It very often does not, and the whole groundwork of the articles is based upon that assumption; 2d, in assuming that the analyses represent all medicinal agents contained in the waters, i. e., that there are no unknown elements or unfamiliar combinations present; 3d, that small doses are inoperative. When I see the iron in certain of these spring waters, insignificant though the dose may be, producing severe physiological effects, not once but constantly, I regard an insinuation that such results are largely imaginary, as a piece of pedantic impertinence. And the same thing holds good of other ingredients.

In conclusion, let me say that there are many excellent men in the medical profession who disbelieve in medicinal springs, and say their work is accomplished by change of scene and habits. I think it will be found that after excluding all the valuable effects allotable to change, there is still a large remainder which can alone be attributed to the waters. Undoubtedly change works much. What if it does? There is an old saying which requires even a certain unmentionable individual shall receive his due. There is good accomplished by the springs, and I say, "let the miracle be done, even tho' Mahomet do it."

Sincerely yours,
W. O. STILLMAN, M.D.

SARATOGA SPRINGS, March 29, 1880.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from April 4 to April 10, 1880.

By S. O. 74, A. G. O., April 3, 1880, the following changes are made;

Assistant Surgeon G. P. JAQUETT is relieved from duty in Department of the South, and assigned to temporary duty at David's Island, N. Y. H., relieving Surgeon A. K. SMITH. Surgeon SMITH, when relieved,

will report in person to C. O. Department of Arizona for duty as Medical Director of that Department, relieving Surgeon J. C. McKee. Surgeon McKee, when relieved, will proceed to New York City and report arrival to the Surgeon-General.

The following named officers are relieved from duty in the departments set opposite their respective names, and will report in person to the President of the Army Medical Examining Board, in New York City, for examination for promotion, and, upon completion of examination, report by letter to the Surgeon-General: Asst. Surgeon Daniel Weisel, Department of the Columbia; Asst. Surgeon P. F. Harvey, Department of Dakota; Asst.-Surgeon C. K. Winne, Department of the Platte.

Asst. Surgeon V. Havard is relieved from duty in Department of the South, and will report to President of Army Medical Examining Board, New York City, for examination for promotion, and upon completion of examination, in person to Commanding General Department of Texas, for assignment to duty.

The following named officers are relieved from duty in the Departments set opposite their respective names, and will proceed to New York City, reporting arrival to the Surgeon-General: Surgeon C. E. Goddard, Department of Texas; Asst. Surgeon F. Meacham, Department of Texas; Asst. Surgeon F. C. Ainsworth, Department of Arizona; Asst. Surgeon C. E. Price, Department of California; Asst. Surgeon M. W. Wood, Department of the Platte; Asst. Surgeon W. C. Shannon, Department of Texas.

Asst. Surgeon L. S. Tesson is relieved from duty in Department of Dakota, ordered to St. Louis, Mo., and report arrival to Surgeon-General.

Asst. Surgeon W. Reed is relieved from duty in Department of Arizona, will proceed to Richmond, Va., and report arrival to Surgeon-General.

Brewer, J. W., Captain and Asst. Surgeon.—The sick leave granted him from A. G. O., September 22, 1879, extended three months on surgeon's certificate of disability. S. O. 67, A. G. O., March 26, 1880.

Medical Items and News.

Contagious Diseases — Weekly Statement. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 10, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
April 3, 1880.	0	11	31	6	110	48	0	0
" 10, 1880.	0	5	44	2	89	40	0	0

"An Act to Regulate the Licensing of Physicians and Surgeons," introduced by Mr. Bullock, in Assembly (No. 578)—read twice and referred to the Committee on the Judiciary—reported from said Committee for the consideration of the House—and committed to Committee of the Whole.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. A person shall not practise physic or surgery within the State unless he is twenty-one years of age, and either has been heretofore authorized so to do, pursuant to the laws in force at the time of his authorization, or is hereafter authorized to do so as prescribed by chapter seven hundred and forty-six, of the laws of eighteen hundred and seventy-two, or by subsequent sections of this Act.

§ 2. Every person now lawfully engaged in the practice of physic and surgery within the State shall, on or before the first day of October, eighteen hundred and eighty, and every person hereafter duly authorized to practise physic and surgery shall, before commencing to practise, register in the clerk's office of the county where he is practising, or intends to commence the practice of physic and surgery, in a book to be kept by said clerk, his name, residence and place of birth, together with his authority for so practising physic and surgery as prescribed in this Act. The person so registering shall subscribe and verify by oath or affirmation before a person duly qualified to administer oaths under the laws of the State, an affidavit containing such facts, and whether such authority is by diploma or license, and the date of the same, and by whom granted, which, if wilfully false, shall subject the affiant to conviction and punishment for perjury. The county clerk to receive a fee of twenty-five cents for such registration, to be paid by the person so registering.

§ 3. A person who violates either of the two preceding sections of this Act, or who shall practise physic or surgery under cover of a diploma illegally obtained, is guilty of a misdemeanor punishable by a fine of not less than fifty dollars, nor more than two hundred dollars for the first offence, and for each subsequent offence by a fine of not less than one hundred dollars, nor more than five hundred dollars, or by imprisonment for not less than thirty days, nor more than ninety days, or both. The fine when collected shall be paid, the one-half to the person or corporation making the complaint, the other half into the county treasury.

§ 4. A person coming to the State from without the State may be licensed to practise physic and surgery, or either, within the State in the following manner: If he has a diploma conferring upon him the degree of doctor of medicine, issued by an incorporated university, medical college, or medical school without the State, he shall exhibit the same to the faculty of some incorporated medical college or medical school of this State, with satisfactory evidence of his good moral character, and such other evidence, if any, of his qualifications as a physician and surgeon, as said faculty may require. If his diploma and qualifications are approved by them, then they shall indorse said diploma, which shall make it for the purpose of his license to practise medicine and surgery within this State the same as if issued by them. The applicant shall pay to the dean of said faculty the sum of twenty dollars for such examination and indorsement. This indorsed diploma shall authorize him to practise physic and surgery within the State upon his complying with the provisions of section two of this Act.

§ 5. The degree of doctor of medicine lawfully conferred by any incorporated medical college or university in this State, shall be a license to practise physic and surgery within the State after the person to whom it is granted shall have complied with section two of this Act.

§ 6. Nothing in this Act shall apply to commissioned medical officers of the United States Army or Navy, or of the United States Marine Hospital Service.

STOUT MEDICAL SERVICE.—A bill for the establishment of a night medical service is being prepared, and will shortly be presented to the Legislature. It will embody all the principal features of the Paris system, as explained by Dr. Stichtel, and will be adapted to the special requirements of New York. In view of the care taken to make this bill as perfect as possible in all its provisions, and to render it as free as possible from objections, it is to be regretted that a medical gentleman of this city has seen fit to construct a night medical service entirely on his own responsibility, to frame an absurd bill for the same, and to publish, in one of the daily papers, the names of a few medical gentlemen who are said to be willing to attend night calls. Without wishing to cast any reflections on the disinterested and honorable motives of the gentleman in question, we would ask the legislators to wait until the main body of the profession can be heard before taking any action.

DR. NORMAN BRIDGE has been appointed one of the visiting physicians to the Cook County Hospital, in place of Dr. Joseph P. Ross, resigned.

THE CASE OF ABRAHAM GOSLING, which has recently been in the courts of this city, has excited much attention, and has some interesting features. Mr. Gosling is a merchant who had accumulated considerable property. Within the past two years his conduct has been eccentric at times and marked with great exaggerations in speech. A short time ago he married. The relatives, being by this time convinced that he was insane, had him arrested, and the case was tried before Judge Lawrence. Dr. A. E. McDonald testified that he had examined Mr. Gosling. He found excessive dilatation of the pupils, thickness, and incoherency of speech, tremor of the limbs, and delusions of grandeur. He boasted of his abilities as a tenor singer, far surpassing Campanini. He boasted also of his business abilities and the great wealth he was to acquire; of his physical powers and purpose to outwalk any pedestrian in the world. He could walk a week at a time, he said, by tying bandages around his limbs, chest, and head, so as to keep in the first long breath for the entire week.

Dr. Hammond, W. L. Hardy, and others, testified to having found the same symptoms; that he was eccentric in his speech and manner, and extremely indecent, obscene, and profane; that he talked of being immensely rich; that he had done and contemplated doing millions of dollars' worth of business during the year; that he was the most powerful man and the fastest walker among all human beings; that he could excel any human being in his vocal powers, and that his superbly handsome appearance attracted universal attention.

This testimony was all in favor of the view that Gosling was suffering from a very typical form of general paresis of the insane.

Nevertheless, two medical experts were obtained who testified that they found nothing in his condition to indicate that he was more than eccentric, boastful, or intoxicated. The jury, influenced by such disagreement, rendered a verdict of sane, and the man was discharged.

The case being discussed at a subsequent meeting of the Medico-Legal Society, the parents and friends of Gosling, not being satisfied with the verdict declaring him sane, have procured an order for a new trial.

SANITARY LEGISLATION.—The Spanish Government has appointed a commission in Havana to investigate the sanitary condition of the island of Cuba, and plan suitable measures for improving the present condition of its ports. Special quarantine regulations at Cuban ports have been decreed by the Captain General.

A bill to create a State Board of Health in Ohio has been introduced into the Legislature of Ohio. It resembles the bill now before the Massachusetts Legislature as regards the regulation of medical practice.

A bill similar to that of Massachusetts has been defeated in the Wisconsin Legislature.

A bill to reduce the salary of the health-officer of the port of New York to $10,000 has been introduced into the New York State Assembly.

THE BLOOMINGDALE ASYLUM is to be enlarged by the erection of a new wing. The work is to be done at the expense of Mrs. John C. Green, who erects it as a memorial of her late husband. It is intended for female patients whose insanity is of a mild type, and who will not need any special restraint. The building will be elegant in all its appointments, and be made to resemble a comfortable home as much as possible. Its cost will be about $130,000. In addition to this, Mrs. Green has bestowed a fund of $200,000 for the benefit of insane women who have been accustomed to the comforts of life, but who have no means to pay for their support in a good asylum.

THE RIGHTS OF AUTHORS.—Dr. Leo T. Meyer considers that an injustice has been done him by the reference in the RECORD of April 5th to the suit brought against him by the Messrs. Putnam. We quote from a letter written by his attorneys. We do not claim that "substantially the same matter" is contained in it that the Messrs. Putnam propose to publish. "Even Prof. Darling said that many of his (M.'s) talks and ideas were original. Besides this, Dr. M. did not undertake to publish a book, it had already been published, but he was about publishing a second edition of his work. The statement that an appeal has been taken is also untrue." We make the correction with pleasure.

DEATH OF DR. C. H. H. SAYRE.—Dr. Sayre, the accident to whom we chronicled last week, died on the 11th inst. from the effects of the severe injuries he had received. During his brief illness he was devotedly attended by Drs. Robert Taylor, James R. Wood, T. M. Markoe, W. M. Polk, J. D. Bryant, Geo. A. Peters, R. F. Weir, E. S. Peck, and M. A. Pallen. He was twenty-nine years old, and since his graduation at Bellevue Hospital Medical College, had been in active practice with his father. Dr. Sayre had already acquired much surgical skill. He was of an impulsive and generous disposition, and leaves many friends to regret his untimely death. His funeral took place on Wednesday, April 14th, from his father's house, the remains being interred in the family vault at Harlem.

THE BILL TO CREATE A LUNACY COMMISSION was brought before the Assembly by Speaker Sharpe on the 13th inst. Mr. Sharpe took the floor and argued in favor of the bill. Mr. Cookinham, of Oneida, and Mr. Travis, of Westchester, spoke against it. On a test vote there was found to be a majority of three against the bill, the vote standing 42 to 39. Wishing to save it, Mr. Sharpe moved its recommittal to committee for amendment. In this he succeeded by a vote of 51 to 42. It is hoped that by making some alterations, a majority in favor of the bill can yet be secured this session.

Original Lectures.

FACIAL PARALYSIS AND LABYRINTHINE VERTIGO.

A Clinical Lecture Delivered at the Cincinnati Hospital.

By C. G. COMEGYS, M.D.

CINCINNATI, OHIO.

Gentlemen:—In the beginning of my course I beg to say that clinical medicine is a science of observation, and to interpret the phenomena of disease we employ the same method which has been so fruitful in discovery in every department of nature. I wish to impress this upon you in the beginning of your clinical studies, for the purpose of encouraging you in methods of fixing data in every case of sickness which you shall encounter in order to give precision to your final judgment. If you are brought to perceive that it is no fortuitous work, but that there is a line of observation to follow which will lead you to intellectual conceptions of diseased action, and if this is the same process as that employed by men in all the sciences, who are laboring to aggrandize human knowledge, it will excite enthusiasm in your studies, and lift you above the dulness and indifference which hard and unsatisfactory tasks so often impose. I freely assert that nothing arouses more our mental activity than the patient investigation and close thought employed in attempting to unravel obscure cases of disease. It will be a pleasure to you to learn that diagnosis can be obtained by the study of symptoms with which you become familiar by bedside observation, founded upon your didactic instruction.

With these preliminary remarks I present for your observation to-day four patients with facial paralysis, but differing from each other in important particulars: first, a case of common peripheral paralysis with labyrinthine vertigo; second, a peripheral one, associated with trismus of the same side; the third, a simple hemiplegic specimen; the fourth, a hemiplegic form, with aphasia.

For their methodical study I shall make use of the methods employed in the sciences of observation. I am talking to students of different attainments, and it is my duty, I think, to teach in the most elementary way. In clinical observations all of our knowledge is employed in the study of a series of facts in order to define the principle or law of their association; that is, to establish one fact whose whole significance is determined by the other facts which it numerically includes; therefore we must, first, attempt to define the organ diseased; second, to localize the point of lesion; third, the nature of the affection; and fourth, the treatment.

To accomplish our object we make three procedures: first, the nomenclature and description of the case; second, a classification of the conditions; third, an inference respecting their functions or laws of operation.

Wm. R——, mulatto, æt. 23; laborer; single; always well, until four months ago, when he had a venereal sore, which very readily healed, and was not followed by any secondary symptoms. Three months since he was exposed to a cold rain, and the next day was seized with a severe pain in the right ear, which spread over the right side of his head, followed by dizziness and reeling towards the left; but he had no sense of weakness on that side. Five days after, found his face drawn to the left, and that he had lost his hearing in the ear, though a buzzing remained. He could not close his right eye; it smarted, and was watery. He states that his food slipped into the hollow of his cheek, so that he could not chew on the right side. When he entered the hospital he was noted as a man of medium height, fairly nourished, though he said he had lost some flesh; appetite good; tongue clean; bowels regular; heart, lungs, kidneys sound; no fever, nor acceleration of pulse. Upon further investigation it was found that all voluntary power over the muscles of the mouth, nose, eyelid (except the upper one), brow, forehead, and cheek of the right side was lost, and that the features could give no expression whatever to any mental state, except such emotion as is represented by a blush or pallor. The nose was drawn to the left; the right nostril contracted and immovable; the eye open, staring; the conjunctiva red; the lower lid everted, and the tears flowing over on the cheek. On attempting to shut the eye only the upper lid moved, while the ball rolled upward, inward, concealing the cornea, which gave the patient the notion that the whole eye was closed. The pupil is natural. Breathing is obstructed when the left nostril is plugged, owing to the tendency of the right one to collapse. He cannot purse his mouth to whistle, and on blowing, as at a candle, the right cheek puffs out, and the air escapes at the right corner. His articulation is imperfect for the labial letters such as b, p, v, f, etc. The palatine muscles act well in articulation and deglutition; fluids escape at the right corner also. His hearing is completely extinct; the taste slightly impaired; and smell a little so, too, through the right nostril.

The secretions of the mouth are not disturbed. The muscles of the tongue are intact, as are also those of the right side of the body, and the muscles of mastication. When you examine a patient in this condition, do not mistake the movement of the jaw by the pterygoid muscles for such movement as the facial muscles produce.

The symmetry of the face you know is maintained with all its wondrous mimetic powers by the synergism of numerous pairs of muscles placed on opposite sides, and as these muscles have no spontaneity of movement, I must, to complete my description, make a statement of the facial nerve by whose action they are brought into play.

The apparent origin of the portio dura of the seventh pair is from the medulla oblongata just behind the pons (I show it here in this admirable model of Ayoux), where part of the fibres are in connection with a special nucleus; but there are others which cross the floor of the fourth ventricle, ascend beneath the pons and follow the cerebral peduncle through the corpus striatum in the internal capsule, forming a part of the corona radiata and finding their ultimate origin in the cortical centres along the fissure of Rolando. Besides this decussation of the fibres of the main track, there are commissural fibres that connect the cortical and basilar centres among themselves, thus establishing a complete bilateral organization of the portio dura or facial nerve. A diagram of this is exhibited on the blackboard. No dissection, it is true, has ever been made demonstrating all this, but it is abundantly proven by experimental and pathological anatomy.

The seventh nerve, as it leaves the medulla in its centrifugal route, is a compound nerve, for it is accompanied by the auditory and intermediary nerve

Wrisberg, and the separation only takes place at the end of the meatus auditorius internus, where the auditory enters into the labyrinth, while the facial and intermediary follow the canal of Fallopius and traverse this bony canal together nearly to its termination at the styloid foramen. Within the aqueduct of Fallopius the facial gives off its greater and lesser petrosal branches, and parts from the nerve of Wrisberg which is henceforth denominated the chorda tympani, but it is really the gustatory nerve and, therefore, afferent in character. I think it would be more correct to say that this is a centripetal nerve—an organ of special sense and joins the facial in the aqueduct and thus connects the anterior two-thirds of the mucous membrane of the tongue with the sensorium. Beyond the junction of the chorda, the facial gives off one or two small branches to the muscles of the tympanum, leaves the cranium at the styloid foramen, runs through the parotid gland, and extending forward divides into two great branches to supply the facial muscles above and below. The upper petrosal branch goes to Meckel's ganglion, whence its fibres are further distributed to the levator palati and azygos uvulæ muscles, and, it is said, some of its fibres go to the submaxillary gland to influence their secretions; but, I think it quite improbable that these purely motor branches of the facial play any such part; it is more likely that fibres of the sympathetic running with it, affect the functions of the glands. The lower petrosal branch goes to the otic ganglion and reaches finally the tensor palati and animates it. I question the influence of a branch of this nerve exciting the secretion of the parotid gland, as is asserted for reasons just given.

The second step in our inquiry must now be taken, for you see that we have as yet made no diagnosis. We have presented a description and the nomenclature, that is, the terms, of the question; we have found that our patient is paralyzed on the right side of his face, but what organ is diseased that produces this, when is it affected, and what is the nature of the affection, remains to be shown before we can be said to have made a diagnosis.

It is essential that all the symptoms should be noted, for any important one overlooked or not ascertained through ignorance of methods of examination, may vitiate any subsequent procedure. What to observe at the bedside requires a high order of medical education. There are many symptoms that any one can see, but there are important ones which an expert only can discover and interpret.

The second step in our research is a classification of paralytic affections of the face. Are the muscles themselves diseased, or is it the nerve which supplies them? If the nerve, is it a pure facial or a peripheral paralysis, or is it a hemiplegic or central paralysis? These are the only propositions we can entertain. The phenomena in this case admit of no further classification.

To solve our problem we must invoke the methods of the differential and integral calculus.

By the differential calculus we explain the methods of finding the differential of determinate functions. Symptom in a pathological inquiry is a synonym of function in physiology.

It is accepted that an alteration in function indicates a change in the structure of an organ.

Vital contractility is the differential of muscular tissue, and this may be excited by chemical, mechanical, physical, or nervous irritation. I prick the sound side with a pin, and it excites promptly muscular contraction of the face and of the body generally. This is a reflex action. I prick the paralyzed side; there is a general start but no muscle of the face moves. This proves that these paralyzed muscles are not under the excito-motor law. I can use electricity only for a further examination of the muscles. I now apply the faradic current to the sound side and promptly all the muscles contract. On the paralyzed side the current produces no contractions—only pain—a pain that excites general reflex movements, but no reflex manifestations through the facial nerve. I now apply a weak galvanic current, and slowly break the flow, and the paralyzed muscles contract; but if I break and make the current rapidly, the muscles do not contract. From this exhibition, you are taught that the muscles themselves are not diseased so as to cause this facial paralysis, and that the contractility they manifest is by direct action on the muscular fibres themselves.

Next, we must examine the facial nerve itself. Already I have shown on the palsied side, that it does not convey reflex action, and therefore it is functional. I now apply both of the electrical currents in succession to the main trunk of the facial nerve on the sound side, and you observe muscular contractions. Every facial muscle moves, but when I make the same experiment on the palsied side, there is no contraction of a single facial muscle. But now, as I increase the strength of the current, so as to reach other sound extra-muscular nerves, you see the jerking of the head and neck; but the face itself is unmoved. Yet, when I apply the galvanic current to the muscles themselves, slowly interrupting it, the muscles do respond. Thus I differentiate again that the organ diseased is the facial nerve.

You are ready to ask, why is it that the muscular contractions follow the slowly interrupted galvanic, and not the faradic current. I am hardly physicist enough to explain this; I merely state the precious clinical fact, that when a muscle is inexcitable to a faradic or a quickly interrupted galvanic flow, while at the same time it is excited by a weak, slowly broken, constant current, we have positive proof that the disease lies in the motor nerve supplying a muscle, and not in the muscle itself. The only explanation I shall attempt is, that muscular tissue deprived of motor nerves is a much slower conductor of electricity than when the nerve is intact. A weak, constant current saturates it, so to speak, which is not the case by a rapid to and fro faradic current.

I have now demonstrated that this paralytic condition is an affection of the facial nerve. I must next show whether it is due to a central or a peripheral lesion. If it were a central disease, the facial paralysis could not be so complete, owing to the bilateral organization of the portio-dura, pointed out in our description; for though the centres of the right nerve in the medulla or in the cortex were involved, yet the decussating and commissural fibres from the opposite and sound side would maintain more or less function in the muscle at its peripheral end. We should have a paresis rather than a paralysis of the facial muscles. Besides other muscles of the right side of his body, the extremities and the tongue in particular, would be involved, and a condition of aphasia might possibly exist. But you see, at my request, his actions of limbs show no hemiplegic symptoms; and the only defect in articulation is in the labial letters. The flabby lips cannot sound b, f, m, v, w, y, clearly. If the lesion of the nerve involve the whole tract anywhere external to the centre, a complete facial paralysis must ensue. This

man cannot shut his right eye, nor move any muscle of his face on the right side.

A peripheral lesion of the facial nerve between the medulla and the origin of the upper petrosal branch would cause a paralysis or paresis of all of the muscles of the face, and of the palate, also andition, equilibration temporarily, gustation would be involved, because these nerves of special sense are all in one sheath with the facial, even down to the origin of the Fallopian canal. If the lesion were between the upper and lower petrosal, the same destruction of physiological function would exist, except in the tensor palati, and azygos uvula muscles. If below the lower petrosal, and above the chorda tympani, no muscles (I leave out of consideration those of the internal ear) other than those of the face would be concerned: but as the chorda tympani is the nerve of taste, that sense would be impaired. Beyond the origin of the chorda tympani, injury of the facial disturbs the facial muscles only.

I now test his sense of taste, in order to study the function of the gustatory nerve, and I shall employ various substances, sweet, sour, bitter. I prevent his seeing them as I apply them. He recognizes them, but, he says, indistinctly.

Our patient is completely deaf in his right ear, and my colleague, Prof. Aub, the aurist and oculist, now on service, assures me that it is from inflammation of the internal ear. Remember that all of his troubles began from exposure in a cold rain. His pain in the ear was great, and he was affected with dizziness and reeling towards the left. Now the facial nerve passes within the pathological area of an inflamed ear, and the chorda tympani runs through the tympanum. The adjoining semicircular canals of the labyrinth have as a function the preservation of the erect station.

The consensus (Ferrier) of the tactile, visual, and labyrinthine impressions maintain the function of equilibration. The vision is of the greatest value in standing or walking—that is, it gives firmness and precision to our movements—yet we can walk with the eyes closed. On the other hand, locomotion may be performed imperfectly when the sensory tracts connecting the extremities with the brain are cut off, the vision remaining intact; but there is no compensation in sight, or touch, to maintain the erect station, if the semicircular canals of the ear on both sides are destroyed—at least, such is the fact when the experiment is performed upon animals. But if only one side be destroyed or injured, the loss of equilibration is *not permanent;* the system gradually recovers its ordinary powers. This, says Ferrier, is an important fact in reference to the pathology of Ménière's disease. Another fact is brought out by Flourens and Goltz, viz.: that the portion of the auditory nerve that conveys aërial vibrations is not *the same* as that which transmits labyrinthine impressions. Destruction of the cochlea (Ferrier) causes deafness, but not disturbance of equilibration, while the destruction of the semicircular canals increases the acuteness of hearing, but destroys equilibration. In Ménière's observation, confirmed by others, besides the vertigo, the tendency in locomotion is to reel from the injured to the sound side.

I have now explained the method of finding the differential of determined functions in the diseased organs of this patient. It now remains to employ an integral calculus to establish the diagnosis so far as relates to the organ and the portion affected. First, I have shown that muscles of the right side only are affected in function; that no voluntary nor instinctive power of expression by them is possible; that the eversion of the lower lid and epiphora are due to the paralysis of Horner's muscle; that these muscles are not diseased in themselves, because they contract under galvanic electrical excitement. Second, that it is the facial nerve alone that is infunctional, because no reflex action whatever is manifest through it, nor will it convey any electrical current so as to excite muscular contractility. Third, that it is not diseased in the centre, nor in its tract higher up than the accession of the chorda tympana, because the muscles of the palate which are animated by the petrosal branch are intact, and there is no hemiplegic symptom in the patient. Fourth, that as the parotid gland is not involved, and because a serious inflammatory action exists in the internal ear, the lesion of the nerve is behind the tympanum in the aqueduct of Fallopius. Fifth, that inflammatory products compress the tract so as to destroy its functions, and it may be well to disintegrate it.

What is the nature of the disease arresting the function of the facial nerve? This question also involves classification; but, having located the affection in the section behind the tympanum, it will be unnecessary to consider all of the pathological conditions to which the nerve and its environments is subject. I will mention such only as are common in such cases: 1, a traumatic lesion; 2, a cachexia; 3, inflammation; 4, disease of the ear.

An injury of the canal of Fallopius by a wound or fracture cannot be inferred from the history; nor is there any evidence of constitutional syphilis which could develop characteristic neoplasms. The venereal sore mentioned in the history was undoubtedly a chancroid. But we have evidence of an acute inflammation following exposure, which attacked the ear, causing great suffering, accompanied by vertigo and temporary perturbation in equilibration, ending in complete deafness and facial paralysis—the condition the patient now presents.

For treatment, we shall depend mainly on the iodide of potassium, beginning with ten grains three times a day, to be increased gradually to forty grains, to be taken in a glass of water. I think no one of experience will question the high value of this agent to remove recent inflammatory products. Also the paralyzed muscles will be exercised every day with the constant current to prevent their atrophy. I regard recovery as very problematical, owing to destructive effects of the inflammation being so apparent in the ear. I am now treating successfully two patients in my private practice, who were seized with complete facial paralysis on account of exposure. The cases have been very obstinate, covering a period of three months. My remedies have been the constant current and iodide of potash up to forty grains three times a day. I have applied tincture of iodine externally beneath the ear, but I think it has been of little value. Be sure to claim a long time to cure a complete case.

The remaining cases present will form the subjects of the next lecture.

The University of Edinburgh has just been made the subject of a munificent bequest by the late Dr. Andrew Vans Dunlop. He has left it the sum of $250 000. Most of the money is to be expended in founding sixteen scholarships, furnishing each an annual income of $500, tenable for three years. Six of these scholarships are for students of medicine.

Original Communications.

A CASE OF

REPRODUCTION OF THE SHAFT OF THE HUMERUS, AFTER EXCISION FOR ACUTE NECROSIS.

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Operations for the removal of dead bone are so common, and the reproduction of osseous tissue as an associated condition is so frequent, that by way of introduction an interest in the following case, it is proper to state that the disease was very severe and extensive, that its treatment was a forced departure from the rule, and the results obtained were exceptionally gratifying.

George G——, aged fifteen years, a newsboy by occupation, was admitted March 3d into St. Francis' Hospital, N. Y., suffering from acute general periostitis of the left humerus. The assigned causes of the inflammation were an injury and subsequent prolonged exposure to inclement weather. The disease had existed for two weeks. His arm, forearm, and hand, were greatly swollen, the skin of the same was smooth and erythematous, and readily pitted on pressure. Fluctuation was plainly marked throughout almost the entire arm, which seemed to be transformed into a large abscess. The general condition of the patient was very bad. His pulse was quick and feeble, his temperature 103¼ F.; his appetite was gone, and his pain was constant. A free incision to the bone was promptly made below the middle of the arm posteriorly, and a large quantity of fetid pus was evacuated. Stimulants were freely given, morphine administered, and a large poultice was applied. The patient was much relieved by this treatment, but in the course of three days the temperature rose again from 101 F. to 105 F., and a new point of fluctuation was discovered just below the insertion of the greater pectoral muscle. Another free and deep incision was made accordingly. Through this wound, as well as through the one made previously, the probe detected bare and dead bone. The entire upper extremity still remained oedematous. An increase of swelling around the elbow gave rise to serious apprehensions concerning the safety of that joint. Fortunately the pus burrowed its way between the supinator longus and brachialis anticus, and appeared under the deep fascia on the upper and external aspect of the forearm. Here another incision was made.

It was only by the most careful nursing, by frequent incisions to remove new accumulations of pus, and by the most generous stimulation, that the patient was kept from sinking.

Two weeks after his admission a spontaneous separation of the upper epiphysis occurred, placing the humerus in the condition of a compound fracture through the surgical neck of the bone. The arm was so stiff and oedematous, and even the slightest pressure upon its inner aspect was so intolerable, that no supporting pad could be placed on the axilla. Accordingly, the arm was secured as well as possible to the side, and maintained there by suitable supports.

This complication of the disease, together with the general condition of the patient, gave such an alarming aspect to the case, that some radical measure for his relief were unmistakably indicated. The natural course would have suggested the waiting until an involucrum formed and the dead bone had separated. But time was precious, and the chances of saving the life and limb were fast becoming desperate. It was evident that the greater part, if not the whole of the humerus, was dead. The removal of such an extent of bone without an involucrum to take its place, and with the soft parts in such an unfavorable condition, did not hold out much hope for a serviceable arm. Amputation, severe as was the measure, was seriously considered as the best chance for the patient. The connection of the utility of this measure came near being a settled fact, when one day word was sent to me by the house surgeon that a hemorrhage had occurred through an incision on the upper and inner aspect of the arm, and that some of the axillary vessels appeared to have been wounded by the separated edge of the shaft. I hastily obeyed the summons, prepared, if necessary, to amputate at the shoulder. Fortunately, the hemorrhage was easily checked, and the parts were restored to proper position without much difficulty.

A turning-point in the patient's general condition was anxiously awaited, in the conviction that his best chance lay in the cessation of the profuse discharge, and in the formation of an involucrum that would allow the dead bone to be removed, as in the ordinary operation for necrosis. But instead of improving he fell back, and operative procedures were narrowed down to a slim chance of saving his life.

On making my visit a few days after the occurrence of the hemorrhage, Dr. Edebohls, the house-surgeon, expressed his belief that the lower epiphysis of the humerus had also separated. Although I was unable to verify this opinion, on account of the swollen and painful condition of the elbow, the possibility of such an occurrence helped me to the conclusion to remove the dead bone entire, save every possible piece of periosteum, and trust in nature for the formation of a new shaft.

The operation was performed March 26, 1879, in the presence of and with the assistance of Prof. J. W. Howe, Dr. C. K. Briddon, and the members of the house-staff of the hospital. Ether was cautiously administered, and brandy was injected hypodermically. An incision was made on the outer aspect of the arm, from the point of the shoulder downward. On introducing the finger into the wound the shaft was found separated from the upper epiphysis, denuded of periosteum and dead. This upper extremity of the shaft was then buttoned through the opening, the idea being to thus enucleate the dead shaft entire, without endangering the musculo-spiral nerve by a longer incision directly downward. Failing in this, with the same end in view of saving the nerve, I determined either to curve the lower portion of the incision forward in front of the anterior border of the supinator longus muscle or to make a second perpendicular incision below the trunk of the musculo-spiral, and on the external and posterior aspect of the bone.

It soon became evident, from the sinking condition of the patient, that the separation of the periosteum must be made as rapidly as possible, and that more room was required. Accordingly, the incision was continued nearly to the level of the condyles. The periosteum, which was thickened, was easily detached, and here and there flakes of new bony mate-

rial were left upon its inner surface. Some of these osseous shells were unavoidably broken and detached. The surface of the bone was smooth, non-vascular, and presented the usual appearances of death from acute suppurative periostitis.

When the condyles were reached no separation of the lower epiphysis was found, although there was a distinct false point of motion in that situation. I could not discover that the elbow-joint was opened or diseased. In fact, I doubted the possibility of the disease extending beyond either epiphysis. A contrary opinion was held by one of the surgeons present, and he was, on that account, strenuous in advising immediate amputation at the shoulder. I declined to do this. Wishing, for obvious reasons, to keep clear of the lower epiphyseal line, I sawed off the bone about half an inch above it. When this was done, and virtually the entire shaft was removed, the arm presented a very unpromising condition. There was no support whatever between the elbow and shoulder for the muscles of the arm. The forearm hung at the end of the flabby and infiltrated muscles flail-like and useless. So little promise did there seem for the future of the arm, that I almost regretted that I had not amputated in the first place. As an additional matter for anxiety, my patient came near dying several times while on the table. Indeed, it was only by dint of the most careful nursing by the attending Sisters of St. Francis that he was kept alive during the night.

The operation being completed, the periosteal sac was washed out with a solution of carbolic acid (one part to forty parts), a drainage-tube extending from shoulder to elbow inserted, and the wound sewed up. When the patient was removed to the ward the arm and forearm were enveloped in antiseptic gauze, laid upon a single inclined plane, and extension made upon the hand by means of a weight and pulley. This kept the arm to its full length; at the same time there was the freest possible drainage through the extremity of the tube at the depending shoulder. Within forty-eight hours after the operation the patient was out of immediate danger. For several days there was a profuse discharge, but the patient's general condition improved notwithstanding. In the course of the fourth week the arm began to stiffen, and it became evident that new bone was being formed. The limb was then placed in the rectangular position. The osseous deposit increased, so that at the end of five weeks more the humerus was firm enough throughout its whole extent to allow the patient to set up and support the arm by the elbow while the wounds were being dressed. It is, perhaps, unnecessary to say that the central portion of the incision healed by first intention. The openings above and below did not close for several weeks.

The extensor muscles of the hand, which were partially paralyzed during the inflammatory process by the involvement of the musculo-spiral nerve, were still more damaged by the unavoidable section of that nerve during the operation. The power of sensation in the parts supplied by this nerve was very much diminished. There was no reaction to the faradic current, and galvanism was applied with the view of preserving the integrity of the muscles, in the reasonable hope that a subsequent union of the divided nerve might occur.

During my absence from the city in the summer, my patient remained in the hospital, and Professor J. D. Bryant, who kindly took charge of him, removed from the outer side of the elbow what proved to be the portion of the diaphysis left attached to the epiphysis. Subsequent to this the elbow became much swollen, violent inflammation of the surrounding fibrous structures occurred, and the angle of flexion became more obtuse. It was not considered prudent at that time to use forcible flexion, and notwithstanding passive motion was faithfully tried the elbow became in a condition of false anchylosis.

When I returned to the city in the autumn the new bone was perfectly solid throughout. The union of the shaft with the head of the bone was complete, as was also the union with the lower epiphysis. The shoulder-joint was freely movable in all directions, and the surrounding muscles were in reasonably good condition. There was slight motion in the elbow-joint. The extensors of the forearm were still paralyzed, but not to such a degree as before. The flexors were quite strong and active.

By the use of Stillman's splint, which allows of fixed flexion at different angles, I succeeded in bringing the arm nearly at a right angle with the forearm. The condition of the extensors has so much improved by elastic support and the faradic current, that there is good reason to believe that the lost nerve power will be eventually restored. If, however, the improvement does not continue, the trunk of the nerve will be exposed by dissection, and any portion of it that may still be ununited will be brought together by suture. In the meantime the affected muscles are kept responsive to the electrical current.

The new humerus is half an inch shorter than the same bone on the opposite side, and is of an irregularly cylindrical shape, the centre of the shaft being somewhat enlarged. The wounds have entirely healed, and the soft parts are perfectly sound.

In referring to the points of clinical interest in this case, it is proper to remark that while excision of the shafts of bones for acute necrosis has been performed several times, the operation is still on trial as to its merits. Such operations, as far as I am able to learn from quite extended examination of the literature of the subject, and from a diligent search so kindly made for me by my friend Dr. E. C. Wendt, of this city, have been confined, for the most part, to the bones of the lower extremity, and notably to one of two parallel bones, as in the case of excision of the tibia. Holmes reports several of

cases. When any bones of the upper extremity have been excised for acute necrosis or any other disease, they have been usually either the radius or ulna, and in such case the companion bone has, as in excision of the tibia, formed an efficient splint during the process of reproduction. Thus being the case, a new bone has been reproduced under most favorable circumstances. With the excision of single bones in either extremity the results have been coherent. Especially is this true when any considerable portion of the shaft has been removed at one time. In regard to the excision of the humerus, I know of but one instance of reproduction of the bone in which more than five inches of the shaft were excised, none, save the one herein reported, in which a similar operation was performed for acute necrosis at such an early period in the disease, and in which such a complete and extensive reproduction of bone occurred. My friend Dr Alfred C. Post informs me that he had on one occasion removed two inches of the upper part of the shaft of the humerus for acute necrosis within three weeks from the commencement of the attack, and that firm union with the upper epiphysis followed.

In the second volume of the *Medical and Surgical History of the War* a large number of cases of primary resection of the humerus for gunshot injuries are recorded, but reproduction of bone took place in a very few. In most of these the excision amounted to little more than the removal of small fragments of detached bone, and the reproduction was, for the most part, a union of the fracture. Where larger portions of bone were removed the rule was a false joint, great shortening of the arm, and the necessity for the wearing of a splint.

A most striking case of reproduction of a considerable portion of the shaft of the humerus was related to this Society by Dr. William Gilfillan (*Trans. Med. Soc., State N. Y.*, 1866). The patient was a soldier, with gunshot fracture of the arm. The excised portion measured four and one-half inches. Dr. Stevens, in the same volume, reports a similar operation with similar result, in which three and one-half inches of dead bone was removed.

Dr. Grandfirm (*Detroit Lancet*, Oct., 1879) removed five inches of humerus for gunshot fracture. There is some doubt as to the perfect reproduction of bone, as the operator leaves us to infer that it was necessary to support the arm in order that the patient might flex his forearm.

Ricordi, of Milan (*Bulletino della Scienze Mediche de Bologna*, May, 1879), reports the case of a boy, aged twelve years, in which reproduction of four inches of the shaft occurred after a resection for compound fracture.

Dr. J. W. Howe (N. Y. Path. Soc., Nov. 27, 1878) removed four-fifths of the humerus (four inches) by subperiosteal section for chronic osteitis. The patient was a child three years of age. Reproduction complete.

Heyfelder, in his work on resections (*Traité des Resections*, Paris, 1863), has collected fifty-seven cases of reproduction of portions of the humerus after excision. Fifty-one of these were for compound fracture. The fragments removed averaged two and one-half inches in length, with the exception of a case by Chassaignac in which the fragment was one-half the diaphysis, equivalent to four and one-half inches. Six of the fifty-seven cases were for chronic osteitis. The largest piece of bone removed in these latter did not exceed three inches. The patients were children. Four recovered with useful arms, one had false joint, and the remaining one died shortly after the operation.

Largier (*Gaz. Med. de Paris*, 1854) resected four and three-quarter inches of humerus for chronic osteitis in a boy aged fifteen years. Reproduction perfect.

The same surgeon (*Gaz. Med. de Paris*, 1859) also excised the humerus from the surgical neck of the bone to four inches breadth above the epicondyle, for chronic osteitis in a patient aged twenty years. Complete reproduction of bone followed. Immediately after the operation there was extensive contraction of the humeral muscles, requiring the use of extension.

In both the above instances the musculo-spiral was evidently severed during the operation.

Borelli relates a case (*Gaz. Med. de Paris*, 1859) in which reproduction of the upper portion of bone, to the extent of four and one-quarter inches, occurred after resection for chronic osteitis in a patient aged fourteen years.

Giraldi (*Bull. de la Societé Chirurg.*, Paris, 1863), in a discussion before the Surgical Society of Paris, referred to a case in which four and three-quarter inches of humerus was excised from a child aged ten years. Reproduction was perfect, and a useful arm resulted.

Bonnesoeur (*Thèse*, Paris, 1866) refers to a case of excision of two and three-quarter inches of the humerus by the same surgeon in a child four and one-half years of age. Necrosis resulted, and the healing of the wound extended over a period of four years. Eventually there was a good arm, which was a little longer than that of the opposite side.

Bourguet (*Compt. Rend.*, 1860) excised three inches from the humerus of an old subject. Result good.

Ollier (*Traité Exp. et Clin. de la Régénération des Os*, Paris, vol. ii.) alludes to a case in which over five inches of the humerus was exsected, but reproduction was incomplete, the arm being at the same time shortened two and one-half inches.

Chassaignac (*Trait. des Op. Chirurg.*, Paris, 1861) reports a case of reproduction in which the inferior two-thirds of the humerus (four and one-half inches) was removed for gunshot injury. Anchylosis of the elbow resulted, also paralysis of the radial extensors from section of musculo-spiral nerve.

The case to which allusion has been made in the commencement of these remarks, and in which the extent of reproduction of the humerus was similar to that in my patient, is reported by Dr. J. A. Donovan (*Lancet*, Jan. 18, 1874). His patient was a boy aged 15. The history seems to prove that necrosis of the upper portion of the shaft existed previously to the attack of acute periostitis, for which the operation of excision was performed. The specimen removed, as figured in the *Lancet*, appears to be composed of two parts—a central sequestrum above, partially enclosed in a cylindrical involucrum below. Notwithstanding the removal of this involucrum, the thrifty periosteum replaced it by new bone at the same time that it reconstructed the remaining portion of the shaft. The head of the bone was likewise removed, it having been fractured at the epiphyseal junction during the operation. The lower section was made just above the condyles. The reproduction was complete throughout the whole extent of the shaft, and all the motions of the limb were well performed, except abduction of the shoulder. It does not appear that the head of the bone was reproduced. The musculo-spiral nerve was avoided by a curved incision forward. The arm was placed in a padded angular splint.

In the recital of cases of reproduction of portions of the humerus, it is not intended to include those

for which the ordinary operation for necrotomy has been performed. A number of such examples are on record, and several in which a complete reproduction of the humerus has taken place. One is reported by Langenbeck, and I have heard of two by Prof. Esmarch. In all of them an involucrum had previously formed, and the operation consisted in the extraction of the sequestrum.

The clinical importance of the case which forms the basis of the communication can hardly be overestimated. The operation was performed under circumstances most unfavorable to the reproduction of bone. The patient was run down to the last degree, so that the question of saving his life by amputation at the shoulder-joint was seriously entertained. The soft parts of the arm were infiltrated with pus, and ploughed by numerous deep incisions. The progress of the disease was so rapid that no time had been allowed for exfoliation of the sequestrum and formation of an involucrum. The extent of the humerus removed, eight and three-quarter inches, was an important consideration in the face of the well-known liabilities to defective osseous reproduction in that bone, as shown in numerous cases of non-union even after simple fracture. The want of any internal support for the soft tissues of the arm after the bone was removed was a feature which militated against a complete and uniformly firm reproduction of osseous tissue. Fortunately, the brachial muscles were so infiltrated as to be powerless of retraction, and were kept intact easily by the extending apparatus.

Under the adverse circumstances to which allusion has already been made, it is not only somewhat remarkable that any osseous tissue should have been produced at all, but that there should have been a reproduction of the entire shaft of the humerus, giving the bone a firmness and strength throughout equal to that of the other arm.

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ON THE CAUSE OF RIGOR MORTIS.

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Lindsay, Ont., Canada.

The attempts to explain the occurrence of rigor mortis as the result of a lowering of the temperature of the body, and as caused by the coagulation of the blood in the vessels, have definitely failed, and have given place to a more recent hypothesis, by which it is attributed to the coagulation of the albuminous myosin, or plasma of the muscle. It will appear from what follows, that this explanation is equally defective, and must in turn be abandoned.

During repose, the reaction of the muscle plasma is alkaline. As the result of vigorous contraction of the muscle during life, and also during rigor mortis, the reaction becomes distinctly acid. Prof. Kuss ascribes the formation of acidity during exercise to the carbonic acid generated during the more active combustion then taking place in the muscle. To the presence of this acidity, and as an effect of it, the coagulation of the myosin is attributed. ("Lect. on Phys." (Duval, Amory), pp. 77, 83.)

We are thus presented with a series of results, as follows: Active muscular exercise generating acidity; the acid coagulating the myosin or muscle plasma, and this coagulation resulting in rigidity of the muscle.

If this be true, it ought to be highly dangerous to indulge in active muscular exertion; and it is surprising that the "spontaneous rigidity, after a continued activity which produces great excess of acid," of which Prof. Kuss writes, is not of more frequent occurrence, if it occur at all.

But in death from ordinary causes, how is the acid generated? There is and can be no active contraction of the muscles, of which the acidity is the consequence. And can the *effect*, or product of muscular contraction during life, be the *cause*, or inciting agent, of muscular contraction or rigidity, after death? Muscular contraction produces acidity, but there is no proof whatever that acidity produces muscular contraction. Indeed, the facts seem to show that the acidity *follows* the contractions of rigor mortis, just as it follows the muscular contractions during life. It is impossible to believe that during normal life the myosin of the muscle is coagulated at all; and after death, the conditions assigned for its coagulation, namely, muscular contractions as the source of acidity, are entirely wanting until rigor mortis sets in. Thus the alleged cause of rigor mortis is not in operation until rigor mortis has occurred, and it follows that the alleged cause is not the true cause, and the hypothesis fails.

In justice to Prof. Kuss (who is simply stating contemporary opinion), it must be added that he does not profess that the myosin hypothesis is sustained by the evidence. He refers to it simply as "now generally supposed" to be a valid explanation. But, strange to say, this is not the only instance in which medical theories or hypotheses are admitted to general acceptance on very imperfect data.

Some minor discrepancies in what is alleged regarding myosin, may be briefly glanced at. Thus, Dr. Brunton finds that muscle plasma "coagulates too quickly in the muscles of warm-blooded animals to allow of its preparation from them." Now rigor mortis does not usually set in for several hours after death—often much longer—and its onset may even be artificially delayed. The statement therefore is only explicable on the supposition that coagulation of the myosin and rigor mortis do not occur together; that is, do not take place as cause and effect. It would seem to be implied that the myosin coagulates at too early a stage to admit of its being the cause of rigor mortis. That the myosin may coagulate without producing rigor mortis, is definitely shown by Dr. Brunton, in an experiment in which half a muscle is placed for a few minutes in boiling water, with the result that "before rigor mortis had time to set in, the albumen of the muscle was coagulated." ("Hand-book for the Phys. Lab.," pp. 363, 449.) Until these adverse facts and discrepancies are refuted or explained, the myosin hypothesis must be held as invalid, and the true cause of rigor mortis sought elsewhere.

The very occurrence of such a state as rigor mortis is a fact seriously embarrassing to the theory of the relations of nerve and muscle long in vogue. That muscle should require the aid of a stimulus from nerve force, in order that it may contract, and that during life such a stimulus is forthcoming, is a conclusion not unnaturally arrived at in the early days of physiology, when appearances were often regarded as realities. But that several hours after life is extinct, after a comparatively long period of cessation, nerve force should thus suddenly display an extraordinary activity, and continue thenceforth to stimulate the muscle in an unwonted degree, for many hours, and even days, maintaining its excessive contraction until decomposition sets in, is a phenomenon which draws largely upon our credulity. It is, therefore, not to be wondered at, that the advocates

of these theory should seek to deny that in rigor mortis the state of the muscle is one of electrotonus at all. On this point, the elder of our modern physiologists, at least, are a unit. Dr. Todd and Bowman say: "The rigor mortis, or stiffening of the body after death, is due to the contraction of the muscles" ("Phys. Anat.," p. 179.) Dr. W. B. Carpenter writes: "All the muscles are affected alike, but the flexors are usually more contracted than the extensors, so that the fingers are flexed on the palm, the forearm on the arm, and the lower jaw is generally drawn firmly against the upper." When very strong, it renders the muscles prominent, as in voluntary contraction. ("Human Phys.," p. 342.) Dr. Aeste (then editor of the London *Lancet*) wrote: "It is notorious that the most steady and persistent contraction which muscle can possibly exhibit, is that which sets in after death, which does not occur until the last remnants of vitality have disappeared, and which, once having commenced, never relaxes till putrefaction releases the tissue from the ordinary laws of molecular attraction." ("Stim. and Narcot.," p. 70.) Even Prof. Kuss, notwithstanding his approval of the myosin hypothesis, declares "muscular contractility is a purely physical property of elasticity; the rigidity of a corpse is a phenomenon of the same order as molecular contraction in the living body." (Ib., p. 88.) If the deliberate opinions thus recorded are now to be repudiated as untrue, something more than a mere announcement of the fact is naturally to be expected. If these opinions are to be maintained, the question arises, how is the post-mortem contraction of muscle in rigor mortis to be explained consistently with the doctrine that requires a stimulus from nerve-tissue as a condition of muscular contraction?

What are the differences in the condition of the muscle during rigor mortis, and in muscular contraction during life? It is sometimes assumed that there is a very material difference; and Dr. Carpenter, in a recent (seventh English) edition of his great work, states that in these states the condition of the muscle "is in many respects different;" but, as between persistent muscular contraction during life, and the persistent contraction of rigor mortis, he appears able to recite only two very immaterial points of difference, namely, a difference of elasticity, and "a change in the state of electrical tension," the extent of such "difference" or "change" not being stated. It is therefore fair to conclude that the modification of the actual condition of the muscle in these two states of contraction is but very slight; and moreover, that the differences in question may be accounted for by differences in temperature during life, and in death, or to other causes wholly extraneous from the act of contraction itself.

Dr. C. B. Radcliffe, F.R.S., writing on this subject, asserts "that ordinary muscular contraction and rigor mortis are only different aspects of the same process." ("Lec. on Epilepsy," p. 124.)

It was necessary to bring this point plainly before the reader, in connection with the subject of rigor mortis, as a preliminary to some considerations on the relations of nerves and muscles, which (with the editor's permission) may be found in a future issue.

MONONUCLEATED CAMPHOR is soluble in the fixed oils, and oil of sweet almonds makes an especially good menstruum. Seven grammes of oil containing one gramme of the camphor can be emulsified with gum arabic and then suspended in syrup.

PUERPERAL FEVER.

AS TO THE PROOF OF HOSPITAL SURGEONS COMMUNICATING THE POISON OF SO-CALLED HOSPITAL DISEASE TO PATIENTS IN LYING-IN WARDS, AND THUS CAUSING PUERPERAL FEVER.

By C. L. MITCHELL, M.D.,

PHILADELPHIA, PA.

By puerperal fever is meant "a continued fever communicable by contagion, occurring in connection with childbirth, and often associated with extensive local lesions, especially of the uterine system."

During the prevalence of childbed fever in the Vienna Lying-in Hospital, from 1840 to 1846, Dr Semmelweiss found that the mortality in the clinical wards was one in ten, while the mortality in non-clinical wards, where students were not admitted, was one in seventy-four. By requiring the students to wash their hands in chlorine-water before examining patients, the mortality in the clinical wards was reduced to one in seventy-four, the same as in the non-clinical wards. Finding also that the fever was connected with the visits of the surgeons in the hospital in particular, all connection with the surgical wards was cut off, and the mortality was reduced to less than one per cent.

This shows the danger of contagion by means of those who were engaged in surgical wards; and shows also, though incidentally, the remarkable efficiency of antiseptics in preventing contagion *by destroying the poison*. Simply washing with soap and water, with which the students had previously satisfied themselves, was insufficient.

There has probably never been an assembly of more able and practical men in the department of midwifery than that called together by the London Obstetrical Society, in 1855, for the purpose of discussing the subject of childbed fever. At these meetings there were present, by invitation, representatives from the schools and hospitals of the cities and large towns of Great Britain and also of this country.

The importance of the topic enlisted the deepest interest of all engaged in obstetric practice, and it is not, perhaps, claiming too much to say that whatever learning, sagacity, observation, and experience could furnish to promote a knowledge of childbed fever was brought out on this occasion.

The value of the discussion may be partially inferred from the fact that the first speaker, Dr. Leishman, of Glasgow, thought that when one approached the subject of puerperal fever he felt that he was approaching a subject with which he was, in a measure, incompetent to deal; while, after the close of the meetings, it might be said, in the words of the Puerperal Committee of the Berlin Obstetrical Society, that "The cause of puerperal fever and the manner in which it was brought about were more accurately known than the cause and mode of propagation of almost any other disease."

That puerperal fever is a septic fever was the almost unanimous opinion of those present. Dr. Grailly Hewitt, of the British Lying-in Hospital, says it is essentially a form of blood-poisoning; again, it consists in nothing more nor less than an injection into the general circulating fluid of a poisonous material of animal origin—a form of *pyæmia*, for the production of which the minutest portion of the morbific agent may suffice. Dr. Wynn Williams, of the Royal Southern Hospital, Liverpool, says every case of so-called puerperal fever is due to sep-

ticæmia — to septic contamination of the blood; again, the disease is purely septicæmic; and again, it is always due to the presence of putrid animal matter.

Many others of the highest authority might be quoted to the same purpose.

The president of the Society, in "reviewing what had been said and written on the subject," says, "The outcome of the discussion in this Society, and the evidence from other sources, is, that puerperal fever is due to the inception of a morbid poison which vitiates the blood."

The Obstetrical Society of Berlin appointed a committee on puerperal fever, who report that "Puerperal fever is nothing else than the infecting of fresh wounds, such as are found in every newly-delivered woman, with septic materials. Thus every newly-delivered woman is liable to suffer from infective wound diseases, which in persons under other circumstances are called pyæmia, septicæmia, wound-fever, blood-poisoning, purulent infection, etc., as soon as suitable septic materials are brought into contact with the genital organs."

From the foregoing it is fair to conclude that every case of puerperal fever, and especially such as is caused by connection with surgical wards, is a septic fever, due to septic poison.

The septic material afforded by surgical wards, contamination with which will cause puerperal fever, has its sole source in decomposing animal matter. The poison is found in hospital *gangrene;* in traumatic *erysipelas,* which is itself a septic disease; in *ill-conditioned wounds and ulcers,* the pus from which is in a state of decomposition; and in the resulting septicæmia.

The poison thus generated may be conveyed by the hands of the practitioner, midwife, or nurse, or by clothes, instruments, sponges, bed-pans, and sheets, and other fabrics. Of all the ways in which the poison may be conveyed none is proved more certainly than that it may be by the hand of the practitioner in making vaginal examinations.

It is almost exclusively by this last-named means that the poison is conveyed from surgical wards to lying-in women. It remains to be shown whether this danger can be obviated or not.

However highly the use of antiseptics in surgical diseases may be valued, their great importance is far from being generally appreciated. The Berlin committee but express the opinion of those who have carefully considered the matter, when they say that "*the greatest advance, probably, which surgery has ever made, consists in the antiseptic method of treating wounds.*" Dr. Duncan, of the Royal Maternity Hospital, Edinburgh, says: "The most important researches (as to the poison producing pyæmia)—those of Lister and his followers—consist in the attainment of results in practice, equally *wonderful* and *valuable,* results that justify the belief that pyæmia is a septic disease, and that puerperal pyæmia may be almost, if not altogether, prevented by the application to delivery of a practice based on antiseptic principles." He further writes: "As practice is at present conducted by careful practitioners, I believe it is nearly as safe as can be. During nearly thirty years of obstetric experience, in private, in hospitals, and in consultation, I have not, as a precaution, given up work for a single day. The grand precautionary measures for obstetric practitioners are: 1st. Avoidance of duties as nurses. 2d. Avoidance of using the hands in post-mortem examinations. 3d. Antiseptic cleanliness of the hands and clothes."

Dr. Playfair says: "I am quite at one with Dr. Duncan, that if proper precautions are taken, any risk from this source might be eliminated, whether we use iodine or any other disinfectant that we like. I have no doubt that danger from this source might be obviated. It is my belief that the risk is not from the facts themselves, so much as from refusing to take the proper precautions which those facts suggest. . . . I do not believe, especially in these days when the use of antiseptics is so well understood, that it is essential for a practitioner to relinquish obstetrical work every time that he is in attendance on a case from which contagion may be carried. *It was otherwise when antiseptics were not employed;* but I can scarcely conceive any case in which the risk of infection cannot be prevented by proper care."

The contagion of childbed fever is much more active than that of septic poison in surgical wards, yet during the continuance of an epidemic of puerperal fever in Charity Hospital, Dr. Lusk passed several hours daily in the wards, but not a single case in his private practice developed an unfavorable symptom. He used "Labarraque's solution to disinfect his hands, washing them to the elbows, perhaps twenty times a day."

Dr. Gillette says: "Puerperal fever is as suppressible, when once it has started, as small-pox, and we never have failed to check it in Charity."

Mr. Callender says: "I have learned to banish, for all practical purposes, septicæmic affections from surgical wards. No such thing exists as pyæmia in the hospital wards under my immediate care. . . . Septicæmia is a disease which, in surgical practice, may be absolutely prevented."

So far, then, as surgical sources of poison are concerned, puerperal fever is a septic fever; and as all septic diseases in surgical wards may be absolutely prevented, and, where septic diseases exist, antiseptic cleanliness on the part of the attendant will prevent its propagation, it is fair to conclude that hospital surgeons, since the introduction of antiseptics into general use, may, with ordinary "antiseptic cleanliness," attend patients in a lying-in asylum without danger of communicating disease.

Occasions sometimes arise when no measures can eradicate the poison or prevent contagion.* Such was that described by Dr. Vache when puerperal fever prevailed epidemically at the New York Almshouse in 1840. "The disease made its appearance on the 12th of June, and was quickly followed by two more cases, apparently so malignant that it was immediately determined to vacate the room, with a view to its purification. The inmates were accordingly removed, and the apartment was whitewashed, ventilated, and scrubbed; the bedsteads were cleansed, new beds and bedding introduced, and, at the expiration of about a week, it was considered sufficiently disinfected to return to it in safety. But the disease immediately reappeared, equally as violent and irremediable as before, and it was concluded most judicious to abandon the building. Another was therefore prepared at some distance from the alms-house, and appropriated as a nursery, after being put in the most perfect order; the bedsteads were cleansed and painted; new beds and bedding were furnished; the physician and nurse were changed; the pregnant women were directed to cleanse their persons by bathing; new clothes and shoes were given to them immediately previous to transferring them to their new habitation, and all intercourse arrested with the inmates of the surrounding premises. Notwithstanding these precautions, the first woman confined,

and subsequently four others in succession, out of five labors, were attacked with the disease, and in every case it was fatal. The lying-in apartments at Bellevue were then abandoned, and other provided at Blackwell's Island. The same precautions were observed, and, for a time, the change of air, free ventilation, and a more generous diet, seemed to have accomplished the object; several were delivered, convalesced, recovered, and were discharged without an untoward symptom; but the disease soon broke out with redoubled fury, attacking almost every woman confined, and setting at defiance every effort for their recovery. The disease in each locality was almost uniformly fatal."

Dr Charles A. Lee, in referring to this epidemic, says: "It could be distinctly traced to a vitiated state of the atmosphere, both general and local. For twelve or fifteen months preceding, there had been an unusual tendency to epidemic disease, generally of a typhoid character. An incurable diarrhœa, followed by mortification of either extremity of the alimentary canal, often with the loss of eyes, defied the efforts of medicine. Mortification often succeeded blood letting. Ophthalmia, when treated in the usual antiphlogistic manner, was followed by rapid ulceration of the cornea. Scarlatina was very malignant and fatal. In short, there was a universal typhoid tendency in all diseases."

In an atmosphere so constituted as that here described by Dr. Lee, a puerperal woman has little chance for escape. A lying-in asylum is no longer a refuge, but is, as expressed by Dr. Bristowe, "a dangerous institution, which ought not to be allowed to exist, except under very peculiar circumstances." The only safety is in the liberal and skilful use of antiseptics, familiarity with which pertains especially to the hospital practice of surgery.

A CASE OF
SUDDEN DEATH FROM AIR EMBOLISM.

By THOMAS A. DUNDAS, M.D.,

ELMIRA, N. Y.

On the 27th day of January last I was notified of a sudden and mysterious death; that physicians had been called, but the patient was dead before the first of them arrived.

I visited the house, and found the person above mentioned to be a woman of ordinary stature, of compact build; aged 27 years; married six years; two children, the youngest three years old.

This woman, previous to her sudden demise, had been in her usual good health; worked hard the few previous days, and on the fatal day was out on business matters. She returned home with her husband from his place of work at 6 P. M. He remained at the house for an hour and then left, that being the last time he saw his wife alive. Her sister, sixteen years of age, testified to being with her till about 8 o'clock that evening—no one else in the house, but the two small children. At 10 o'clock she called the sister down, groaning; was on the floor; was questioned, but only gasped one word.

A Davidson's syringe was found between her limbs, the long female tube was attached, the tubular part was smeared with fresh blood; there was blood on her hands, also on a towel at her feet; the syringe had been inserted into her person.

There was no basin or water around.

Autopsy held by Drs. J. E. Weaver and C. W. M. Brown, January 27, 1880, elicited the following: Lungs were everywhere adherent to the pleura, otherwise healthy. Found the heart, to external appearance, evidently containing gas of some kind; accidentally opening the right external jugular vein, there escaped bubbles of air with frothy blood. All vessels connected with the heart were immediately ligated; heart was then removed. Placed it under water, carefully manipulating it so as to cause any air on external surface to rise from it. The right auricle and ventricle were then opened under the water; large bubbles of air escaped with blood, the blood presented a frothy, churned appearance; the left heart was empty of blood. At the least calculation, one cubic inch of air escaped at this time. Uterus and ovaries were then removed. Length of uterus five inches, largest circumference seven inches. On the posterior surface, two and a half inches above external os, saw something protruding from a puncture; on feeling through external os, felt the other extremity. The uterus was full of air; it was then laid open in the median line, and the points of entrance and exit of the protruding substance carefully examined. The substance proved to be a portion of an ordinary knitting-needle, two and a half inches long. This, for at least three-quarters of its length, was directly imbedded in the uterine walls, and extricated with considerable force. Below the point of puncture, on the external surface of posterior wall, was an ecchymosis, which was produced from another artificial sinus, made from through the os, probably at the same sitting from the same cause. Found a similar spot on the anterior surface near the fundus. On the inner surface, found a clot of venous blood opposite the external ecchymosis. Also a fœtus of about three months development. On the inner surface, directly opposite the external ecchymosis, the placenta was detached, from force of some kind. On the inner surface of placenta, opposite this, was a venous clot about the size of a finger-nail. In the left ovary was a tumor two inches in diameter; it was a dermoid cyst filled with hair and sebaceous material. Drs. Weaver and Brown gave it as their opinion that death was caused from air embolism gaining entrance through the uterine sinuses.

A somewhat similar case was reported by Medical Examiner Dr. J. C. Gleason, of Rockland, Mass., in *Boston Medical and Surgical Journal*, Aug. 7, 1879. In his case a woman, pregnant about six months, was given an intrauterine douche by one Dr. Gilson; while undergoing the operation she suddenly expired. A careful autopsy was had in his case, but no *postem* evidence of air embolism found, though it was supposed to be the cause of the death, by air being forced in with the water through an imperfection in the douche used.

This case of Dr. Gleason's was shown me some little time after the inquest in the case I report; up to then I had never heard of a case anywise similar.

Death from air embolism is dependent upon the amount, or rapidity with which air enters the veins. In experiments upon animals, a small quantity, quickly injected, causes immediate death; while a much larger quantity, slowly injected, does not end fatally. Death from air embolism is not instantaneous in many cases; from a few minutes to several hours generally intervene. As physicians we are aware of the desperate and frantic efforts often made by women to bring on abortion. In the present state of society, a large ratio of American women deem an increase above one or two children a burden; some of them will stop at naught to prevent an additional

member. In this case, so far as could be learned, the needle was used by the woman's own hands, to bring about the desired boon. Much force must have been used in the desperate adventure, which resulted in breaking the needle after being so firmly imbedded in the uterine walls. Probably when the terrible mishap was discovered, the syringe was grasped as a last resort. With a rapid pulse and an emotional respiration the empty syringe was used.

But what the idea was is hard to know. Was it to further the induction of the crime, by injecting strong currents of air into the womb? or could she hope to extricate the broken needle by the suction force of the syringe? No doubt it was used with a desperate hand, and the entrance of the air into the torn and open sinuses caused the terrible result.

If the large vessels had been closely examined, considerable air could have been discovered in the circulation itself, as a large quantity was denoted both by the number of bubbles and the very sudden death.

The constitutional effects were graphically described by the sister: "extreme faintness; oppression about the chest; screaming out and continuing to moan; with rolling eyes and gasping respiration."

The air and blood, mixed together in the right cavities of the heart into a frothy mass, cannot be driven through the pulmonary vessels; thus the brain does not receive sufficient blood-supply, resulting in fatal syncope, usually attended by convulsions. The frothy mixture in the ventricles is unable to close the valves of the heart, and that organ finally comes to a stand-still. The normal blood regurgitation from the large arteries, as soon as the impulse of the heart's contraction is removed, is competent to close the valves at the orifices of these vessels. Now, substituting air for blood, the valves are not closed, hence the propelling power behind the circulation is destroyed, no matter how vigorously the heart continues to work.

An original theory for treatment for the relief of patients suffering from this accident, was advanced to me by Dr. Weaver. Place the patient on the right side, with the shoulders considerably lower than the hips, say at an angle of 45°, then tap smartly on the chest, back, and left side. The object being, first, to cause all air still in the heart to retreat to the apex, thus not embarrassing the valves, nor entering the circulation, save so fast as it may be absorbed by the current of blood constantly passing underneath. Second, to cause, if possible, a regurgitation of the air which may have already entered the pulmonic circulation. If a much larger angle of inclination is made, the right heart will not be near enough to the vertical to keep the air at its apex; and if a smaller angle, regurgitation of what air may be in the pulmonary arteries will not be accomplished.

A Royal Physician.—Charles Theodor, of Bavaria, the royal Prince, has just been regularly admitted to practise as a physician. He is a specialist of some renown in eye diseases. He has practised for several years with considerable success, and has been at the disposal of his many patients at all hours of the night and day. He is a generous as well as a wealthy man, and to his poorer patients gives not only medical advice but substantial help. The Prince is the brother of the Empress of Austria, the Queen of Naples, and the Duchess of Alençon, and upon his elder brother's death will be the head of the Bavarian ducal line.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

Artificial Feeding — The Œsophageal Tube and Funnel.

In a recent lecture delivered by Dr. John P. Gray at the Bellevue Hospital Medical College, attention was directed specially to feeding patients by means of the œsophageal tube and funnel. The point of interest was the adaptability of the plan to sustaining nutrition in cases other than those in which the patient is insane. The plan is to introduce an ordinary flexible œsophageal tube into the stomach, adjust a funnel to its outer extremity, which carries a metallic ferrule to keep it from brooming, and then pour in such quantities of fluid food as may be desirable. The tube is easily introduced by carrying it along the side of the mouth and around the tonsil, and so down, and when introduced in that manner gives less inconvenience to the patient than when carried through the centre of the pharyngeal space. The tube and funnel were recommended in cases of faucial paralysis, for example, following diphtheria; in cases of acute tonsillitis attended with difficult and painful deglutition; in cases of even severe inflammatory sore-throat; in short, in *any* case in which the patient finds marked inconvenience from any cause in swallowing. The lecturer remarked that there was not only no excuse, but, on the other hand, a culpable neglect for allowing patients to starve to death when the means could be so easily used for supplying them with food.

Those who hold the jaws closed and thus resist the introduction of the tube, can be easily overcome by insinuating the end of a strong spoon-handle, or a piece of firm wood covered with cloth, between the teeth and then turning it up edgewise, when the tube, being only about five-eighths of an inch in diameter, can be readily introduced.

Interstitial Hepatitis—Splenitis.

The following case presented points of interest relating to diagnosis and treatment: A middle-aged colored man had been sick nearly four and a half months. He had lived in New York for twelve years, except for short periods when he was at Long Branch, Saratoga, and Niagara. He had had syphilis, and had drunk alcoholics steadily. His habit had been to take one or more drinks before breakfast. During the past two months he had been obliged to take two Seidlitz powders to keep his bowels open, but prior to that time was regular in that respect, and never passed any blood from the bowels.

Four months and a half ago he was, as he supposed, perfectly well when he was taken with pain in the left side and vomiting a short time after each meal; the material thrown up being stringy phlegm, sometimes food, but he had never vomited blood. After a time he began to notice a swelling about the stomach, and about ten days ago he noticed for the first time that his feet were swollen. On making a physical examination a tumor was found, not uniform, extending from the median line to the left, and from the upper part of the abdomen downward to within two inches of the crest of the ilium. It had a well-defined sharp edge. The area of hepatic dulness

was increased vertically about one inch. There was evidence of fluid in the abdominal cavity. The veins upon the surface of the abdomen were enlarged. Just below the free border of the ribs, on the left side, where the tumor became prominent when he laid upon that side, there was a feel as of indistinct fluctuation, and at that point there was flatness upon percussion. He had never had chills; no history of malaria could be obtained; he was losing flesh; he had been in the hospital ten days; his pulse and temperature were normal; he was tapped, and ten quarts of fluid removed from the abdominal cavity, and after tapping a friction sound could be heard over the tumor, just below the free border of the ribs. It seemed that his symptoms began with enlargement of the spleen. It was thought not to be due to obstruction to the return circulation in the liver consequent upon cirrhosis, although the patient gave a history which showed a predisposition to interstitial hepatitis. It was believed that the pain was due to perisplenitis, and the friction-sound, after withdrawing the fluid, seemed to make it conclusive that there was inflammation of the capsule of the spleen. If there was a sac there containing fluid, the question of hydatids would arise, but the fact that there was no evidence of hydatids in any other organ would exclude the probability of hydatids being present in the spleen, for they usually make their appearance first in the liver.

It was thought that it possibly might be an infarction of the spleen which had undergone rapid degeneration and, in that manner, formed a cavity containing pus and broken-down splenic tissue. It seemed quite evident that there were two conditions present not dependent upon each other:

First. Interstitial hepatitis, with probably sufficient fatty degeneration to prevent the liver from becoming much diminished in size.

Second. An inflammation affecting the spleen, which had its origin either in degeneration of an infarction, or some other cause, and had led to an accumulation of fluid that probably was pus. An exploratory puncture was to be made, and if pus was found, the aspirator was to be used for its removal.

CHRONIC URETHRITIS.

A plan of treatment given was the following: First obtain the complete confidence of the patient. He was twenty-one years of age, had used all kinds of injections, had had his meatus cut, but notwithstanding had had a discharge from his urethra for two years. Use such medical treatment as the constitutional symptoms seem to demand. For surgical treatment in this class of cases the following suggestions were made: if the meatus is narrow and has not been cut, divide it, but be careful and not make a hypospadias, and do not cut it sufficient to set up inflammation, balanitis, etc.; cut just sufficient to give to the meatus the normal calibre represented by an instrument which cannot be expanded. There is no absolute rule as to how much cutting should be done. Hypospadias produced by porotomy cannot be cured. After cutting, dilate daily until the wound be closed, and afterwards continue to dilate, perhaps over-distend the urethra gradually, not suddenly, where the tender spot may be; for one or more tender points are usually present. The tendency is for the disease to extend backward toward the bladder and continue for years.

No indiscretion must be allowed with either Bacchus or Venus. Cure the urethral discharge as soon as possible. Early and efficient treatment is all-important. All the ordinary injections are useless. Irrigation properly used, will do a great deal of good if proper dilatation with sounds is made. To irrigate, introduce a medium sized catheter as far as the bulb of the urethra, if you wish to irrigate the anterior portion of the urethra, and then with either a fountain or Davidson's syringe throw in fluid, beginning with cold water, and wash out the urethra thoroughly. More than that, as in the case before us, it was deemed proper to irrigate the prostatic region; and to do that, carry the eye of the catheter to the membranous portion, and from that moment the wash will go the entire length of the urethra. If it be deemed advisable subsequently to use astringents, bichloride of soda may be used, and afterward perhaps nitrate of silver in *weak* solutions, which was said to yield more satisfactory results than strong ones. One-tenth of a grain to the ounce of water was regarded as sufficiently strong to begin with, and *one* grain to the ounce as strong as should be used at any time. Allow the patient to hold half a pint of urine before the injection is used, or if the bladder is empty, the same quantity of water may be thrown in. Nitrate of silver has a special advantage, because it blunts the sensibility of the mucous membrane.

Progress of Medical Science.

METHODS AND RESULTS OF OVARIOTOMY.—Dr. Goodell, of Philadelphia, reports eight cases of ovariotomy performed during the past year, with the result of six permanent recoveries, one temporary recovery, and one death. The fatal result in this last case was expected, on account of previous inflammation of the cyst. The temporary recovery was in a case of malignant papillary cyst of the ovary, which had burst and infected the whole peritoneal surface; the patient recovered from the operation, but died soon afterward, as was expected. Dr. Goodell attributes his low percentage of mortality partly to his growing experience, and partly to the use of the antiseptic methods. He used a five per cent. solution of carbolic acid for the atomizer, and also for the sponges and hands, but thinks it too strong for the latter uses, as it made the hands tingle, and seemed in two cases to prevent union by first intention. It does for the spray, because it is then diluted fully one-half by the steam. The advantage of including two ribbons of peritoneum in the abdominal stitches, was well shown in one case, where the wound would have gaped entirely open, if the peritoneal surfaces had not united. The quick union of these surfaces also prevents the pus from the wound above from getting into the abdominal cavity. His fatal case showed the need of using antiseptic precautions, even in the simple operation of tapping, to guard against the decomposition of the residual cyst fluid, or inflammation of the cyst wall from the introduction of poison germs. Dr. Goodell believes that the intra-peritoneal method of dealing with the stalk is the best, when antiseptic precautions are used. The only sound objection to it is the liability of the raw end of the stump to seal itself to a loop of the bowel and cause obstruction. In one case, to prevent this he doubled over inward the cut edges of the stalk, and stitched them together with fine gut, thus covering the large raw surface with a lid of peritoneum. The ligature used for the stalk was always of fine carbolated silk, and the stalk was always transfixed and

tied on either side. Gut was not used, because it is liable to become untied, and to be absorbed too early. In short and broad stalks, the thin and membranous, or broad ligament side, *i. e.*, the side opposite the one in which are the oviduct and ovarian ligament, is liable to slip out of the loop of the ligature and cause fatal hemorrhage. This happened in one of the cases, but was fortunately discovered in time. It may be prevented by using the cobbler's stitch, or by passing a gut thread through the outer edge of the stalk just above the ligature, and tying it in a knot. All the details of Lister's antiseptic method were carried out in these cases, with the exception of the dressing, which is bulky and stiff. Instead of it, salicylicized cotton was used; a thick and wide roll of the cotton was laid over the wound and gently pressed in between the wires. Long strips of adhesive plaster kept the cotton in place, and over all, a fine white flannel binder was pinned. This dressing was simple, and its elasticity brought the abdominal walls in firm contact with the bowels, and thus checked any persistent oozings. It was kept on as long as no odor could be detected, viz.: from a week to ten days. Dr. Goodell has discarded entirely the use of drainage-tubes, as he believes them not only useless but hurtful, from the irritation they produce. Ovariotomy should, in his opinion, never be performed except by the antiseptic method, and drainage is then needless, because the antiseptic clots do not break down, but become organized, and because, after the use of the spray, denuded surfaces of peritoneum heal up kindly without the formation of pus. —*The Clinical News*, March 6, 1880.

Reduction of an Inversion of the Uterus of Fifteen Months' Standing.—Prof. Lewis, of New Orleans, recently reported the successful reduction by Emmet's method of a chronic inversion of the uterus of five months' standing. He now reports a case of successful reduction where complete inversion had existed for fifteen months. The treatment consisted mainly in steady pressure by means of the rubber bag distended with water. The bag was removed every second day to cleanse the vagina, and on two occasions manipulation under chloroform was tried without much effect. On the thirteenth day, when the bag was removed, the uterus was found more than half reduced, the body and fundus being within the cervix, and on the sixteenth day the reduction was found to be complete. The cavity of the womb was then examined and found to be normal. In introducing the bag, Prof. Lewis points out that the uterus should be well pushed up first, as otherwise the pressure is but slight upon the fundus, and the bag at the moment of distention may rise between the vaginal walls and the uterus, compressing it laterally.—*The New Orleans Med. and Surg. Journal*, March, 1880.

Casts of the Uriniferous Tubules.—Dr. Tyson read an instructive paper on this subject before the Philadelphia County Medical Society at its meeting January 14, 1880. The author makes the following general statements: 1. Hyaline casts are found in all forms of Bright's disease, as well as in temporary congestions of the kidney, active or passive. 2. Epithelial casts are found in acute, subacute, and chronic parenchymatous nephritis. In the latter two forms the cells are generally degenerated and fragmentary. 3. Blood casts are found in acute parenchymatous nephritis, and when hemorrhages have occurred in the kidneys. 4. Pale granular casts are found in interstitial nephritis (congested kidney) and chronic parenchymatous nephritis. 5. Dark granular casts are found in parenchymatous nephritis, acute and chronic, and rarely in interstitial nephritis. 6. Waxy casts are found only in chronic Bright's disease, and attend either of the three principal forms. 7. Oil casts are found in subacute and chronic forms of Bright's disease, and may attend any of the three principal forms, but are most numerous in chronic parenchymatous nephritis (fatty kidney). 8. Free fatty cells and free oil drops are found in chronic parenchymatous nephritis. 9. The form of fatty cell known as the compound granular cell is found in acute and chronic parenchymatous nephritis.—*Phila. Med. Times*, March 13, 1880.

Phlebitis of the Lower Extremities—A Secondary Complication of Injuries of the Head.—Dr. H. G. Croly, of Dublin, has observed two cases of this unusual affection. In the first one, a Mr. K., æt. 35, met with a severe injury of the head by having been thrown with much violence from a carriage. He was unconscious for a short time after the accident; there was arterial hemorrhage from the left ear, vomiting of blood, and sanguineous effusion in the left mastoid region, and, subsequently, facial palsy, but no injury whatsoever of the lower extremities. Consciousness was soon restored, but the arterial hemorrhage continued from the left ear for several hours. The patient suffered from the usual symptoms consequent on injuries of the head. The treatment adopted was the application of ice constantly to the head, James's powder, absolute rest, quiet, and a most carefully directed dietary. The head symptoms gradually subsided, and in a month the patient felt so well that he was approaching convalescence, and was anxious to be allowed out of bed. However, just a month and three days after the accident, he complained of acute pain in the left groin and thigh; the inguinal glands became enlarged, and very hard and painful to the touch. The pulse rose from 64, its normal number, to 100, and the temperature also rose to 100°. The foot also became swollen and painful, and the entire limb œdematous; the patient complaining much of the heavy weight, as well as the pain of the limb, which presented all the appearances usually attending phlebitis. From the 21st to the 30th of November, the pulse and temperature remained stationary at 100; both then fell gradually, the pulse to 64, the temperature becoming normal. On the 7th of December the patient complained of pain in the opposite leg. The swelling which followed did not extend higher than the knee; severe rigors and perspirations occurred at the same time. The femoral and posterior tibial veins were hard and painful, and the pulse of the posterior tibial artery could scarcely be felt behind the internal ankle. The treatment adopted was leeches to the groin, anodyne draughts, hot sedative fomentations, linseed poultices, and elevation of the leg. The whole limb was wrapped in wadding, followed by stimulating and anodyne embrocations, besides friction and careful bandaging with flannel rollers, nutritious diet, and quinine. The patient gradually and slowly recovered (but both legs, especially the left, remained swollen and œdematous for several weeks), and is now in good health and able to walk as well as ever. Case II. was in all essential respects exactly similar to Case I. The same line of treatment was also adopted, and the patient is now recovering.—*The Med. Press and Circular*, Feb. 25, 1880.

Fibroid Phthisis.—Dr. Shattuck, in a paper read before the Essex North District Medical Society, Jan-

vary 13, 1880, cites the following case: J. R., 40 years of age, was discharged early in September, 1879. His grandfather died of asthma, and two brothers out of nine have died of quick consumption. He served four years in the navy during the war, contracting typhoid and intermittent fevers. After his discharge, in 1865, was strong and hearty, and worked in a printing office. In October, 1870, caught cold while housemoving, from exposure, and from this cold he dates his present troubles. Though he had persistent cough did not consult a physician for upwards of a year, at the end of which time he had night-sweats, and was so much run down that he sought advice. Spat blood for the first time in 1872, since when has had attacks of hæmoptysis, recurring at intervals every spring except that of 1879. Is positive that he must have spat blood at least eighteen or twenty times—the last time in October, 1879. Between 1873 and 1877 worked off and on; was laid up once for ten months, once for five, and alternately lost and gained in weight. Since the spring of 1877 has been able to do no work; his weight was at that time at its lowest point. Since then has gradually gained in flesh. Has had the opinion of many physicians, and has been twice an inmate of the Boston City Hospital. All agreed in the opinion that he was in consumption. Gives a history at one time during his sickness of expectoration as from a large cavity. He now complains of dyspnœa, greatly aggravated by exertion, and cough, with profuse muco-purulent expectoration. There is decided flattening and deficient expansion of both upper fronts, and the integument is drawn inward during inspiration. There is also marked dulness on percussion on the upper part of both lungs, front and back, with very harsh respiration. During February, 1880, he became insane, and died in an asylum to which he had been taken. The autopsy showed characteristic fibroid phthisis, marked peribronchitis, and a number of bronchial dilatations, but no foci of lobular pneumonia or cheesy nodules.

An Invisible or Third Corpuscular Element in the Blood.—In a paper read before the Birmingham Philosophical Society, Dr. Norris describes a research on a "third corpuscular element" which he believes to exist normally in the blood. He propounds an entirely new view regarding the histology and growth of the blood-corpuscles. He concludes that in normal mammalian blood there are certain colorless, invisible, biconcave disks, similar in every respect to the red corpuscles, with the exception of the absence of color; that these corpuscles exist in the blood in large numbers, and that they are, in fact, an earlier stage of the red corpuscles in which they have not yet obtained hemoglobin. He further considers that they are lymph-corpuscles which have assumed a biconcave form immediately on being introduced into the current of the blood. Between the two kinds of biconcave disks (the ordinary red and Dr. Norris's invisible corpuscles), others, having every intermediate gradation of color, are demonstrable. The author states that he has been able to observe the conversion of the discoid lymph-cell into a biconcave corpuscle. He is entirely opposed to the current view that the white corpuscle of the blood is a nucleated cell; he considers it to be a mere "accidental aggregate of adhesive lymph-corpuscles," the false appearance of nucleation being caused by post-mortem changes.

Mrs. Ernest Hart, in a critical note on Dr. Norris's research, very justly observes that the author's methods are open to the objection of tending to produce artificial appearances. Three methods by which the "colorless corpuscle" is rendered visible were: 1. By changing the refractive index of the serum by the addition of a saturated solution of common salt. 2. By withdrawing the serum from the corpuscles by the method called "packing." 3. By withdrawing the corpuscles from the serum by the method described as that of "isolation."

As to the first, Mrs. Hart calls to mind the fact that the solution of sodium chloride causes many blood-corpuscles to lose their hemoglobin, and thus assume the appearance of Dr. Norris's "invisible corpuscle." Regarding the method of packing, she points out that the corpuscles are here subjected to an extreme degree of pressure, which causes certain of the corpuscles to discharge their hemoglobin and to become transparent. The method called by Dr. Norris "isolation," again does violence to the delicate structure of the red blood-corpuscles, so that many of them have the appearance of being ruptured, and of having lost their contents. Hence the reality of Dr. Norris's third corpuscle as a normal constituent of living blood is extremely doubtful.—*Reprint from the Lond. Med. Record*, Jan. 15, 1880.

Rupture of the Heart. Instant Death.—Dr. Gershon H. Hill, first assistant physician in the Iowa Hospital for the Insane at Independence, writes: "Mrs. Sarah F. B——, æt. 51, born in Kentucky. She was 5 feet 3 inches in height; of late years has been hearty, fat, and at death weighed about 200 pounds. Insane twenty-eight years; under hospital treatment nineteen years. She was pretty thoroughly demented, incoherent, and, unless kept by herself, irritable, noisy, and more or less violent. On account of a quick temper and a solitary disposition she was allowed to remain in her bedroom during the day. On the morning of March 3, 1880, she ate heartily, put her room in order, washed a few garments for herself, got into bed, and at 9 A.M. sat there mending socks as usual. At 12 M. she was dead. Without exertion or excitement, without protracted pain or a struggle, she died instantly. Her right hand was in her lap with her work, her left hung at her side, her head was bowed, resting upon her knees. An autopsy, four hours after death, gave no evidence of cerebral hemorrhage. The lungs were in good condition, without pleuritic adhesions. The pericardium was distended with blood and somewhat adherent to the heart. The organ was hypertrophied; there was not an unusual deposit of adipose tissue nor dilatation of the ventricles; it contained but little blood; when emptied, weighed twelve ounces.

The valves were in good working order; there was not the appearance of fatty degeneration. The proportionate thickness of the ventricles was normal, but the left was ruptured in front near the septum, midway between the auriculo-ventricular groove and the apex. The aperture was one-third inch in length, more like an incised than a lacerated wound. There were a few small clots infiltrated beneath the serous coat near the rupture, probably deposited immediately before the bursting of this membrane. Within, there was a circumscribed spot of myocarditis on the anterior wall corresponding with the rupture. The ventricle was not thin at this point, but there was a fissure through the disorganized muscular tissue. The abdominal viscera were not examined.

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THE BILL TO ESTABLISH A LUNACY COMMISSION.

THERE has been much disappointment felt that the bill to create a Lunacy Commission did not pass at the first attempt. There is still, however, a prospect of its getting through, as the majority against it was very small, and as the opposition of several members was on account of certain minor defects which can be easily remedied.

The only objection to the bill which can be fairly presented, is that the plan to unite a Lunacy and Charity Board will prove cumbersome and ineffective. This objection, however, has been fully considered by the committee who drew up the bill, and a candid examination of the matter will, we believe, show that the argument is not valid.

There has been a good deal said about the conjoint Board of Health, Lunacy, and Charity in Massachusetts, and many complaints have been made of its inefficiency. It is not condemned by the Governor, however, and its evils, if any, are probably due more to lack of officers and money, than to the system itself. But, at any rate, the proposed Lunacy and Charity Board of this State is by no means a copy of the conjoint Board of Massachusetts, and it would be unfair to argue from one to the other. The plan now before the State Legislature has all the elements of feasibility, economy, and effectiveness, and it ought not to be opposed because it faintly resembles an economical experiment in Massachusetts.

But the bill is not in danger on these accounts. Underlying these objections, which really amount to very little, there is the active opposition of the Medical Superintendent of the State Asylum. Why this should be the case it is hard to explain, save upon the supposition that a law which would benefit any of the asylums in the State might have a contrary effect upon the institution at Utica. It has been shown in these columns, and the figures have been confirmed by a special report of the Comptroller in 1879, that the Utica Asylum has been conducted with considerable financial looseness. We do not care to go into the matter now, or repeat old figures, but we are putting it as mildly as possible when we say that the Asylum has been, and presumably now is, quite extravagantly managed. This is the inference from official reports. The active opposition of its superintendent, therefore, to all attempts at securing anything like exact supervision, can hardly be considered a very strong argument against the real utility of the bill.

RAISING THE STANDARD OF MEDICAL EDUCATION AT HARVARD.

THE Harvard Medical School has recently given substantial evidence that the present agitation for a higher medical education is not to be without fruits. In its announcement for 1880-81, it provides for a four years' course of study, and prescribes a more rigorous preliminary examination. This fourth year of study is at present optional, a degree being still attainable in three years; but an inducement to take the longer course is given in the increased facilities for practical work that are offered. In addition to this, a degree of doctor of medicine *cum laude* will be bestowed on students who go through the four years' course, and obtain an average of seventy-five per cent. upon all the annual examinations.

The preliminary examination requires English composition, the translation of easy Latin prose, a competent knowledge of physics, and a knowledge of either French or German, algebra, geometry, or botany.

This step upon the part of the Harvard Medical College is a most commendable one, and we hope its success will justify the trial of a similar or even more radical plan elsewhere. We do not feel so deeply, perhaps, as those living nearer Boston, that the adoption of an elective fourth-year course at Harvard "marks a great era" in the history of medical education, but it does indicate real progress, and credit should be given to the authorities for taking the lead as they have done.

MEDICAL LEGISLATION IN IOWA.

AT the recent session of the Iowa State Legislature, two bills were passed that will be very beneficial to the State and helpful to the profession. These were: a law establishing a State board of health, and a law regulating the practice of pharmacy and the sale of medicines and poisons. The provisions of these laws resemble largely those already established in some of the other States. The board of health is to consist of nine members, seven being physicians. Their duties will be to look after the sanitary condition of the State, make appropriate scientific investigations, and secure the registra-

tion of vital statistics. Such registration is made compulsory upon physicians, the penalty for not reporting a birth or a death being a fine of ten dollars. We have before referred to the fact that there is a good deal of arbitrariness in thus forcing physicians to do gratuitously work which often calls for special knowledge. It may not be well to complain, however, until the people have learned to appreciate the necessity of sanitary boards and the value of vital statistics.

An effort was made to confer upon the health board, thus established, power to regulate the practice of medicine. A bill to this effect was introduced, its provisions being very similar to those of the Illinois law. It passed the Senate, but failed in the House; and as the Iowa State Legislature has biennial sessions, nothing in this direction of regulating the practice of medicine can be expected for some time.

The law to regulate the practice of pharmacy, etc., provides for the appointment, by the governor, of a board of commissioners of pharmacy. This board sees to the registration of every pharmacist in the State, and forbids the dispensing of medicines, except by such a registered pharmacist, or by a physician. Any person proposing to become a pharmacist hereafter, must pass an examination before the commissioners or obtain a diploma from a pharmaceutical college. The law, in addition to this, makes stringent provisions as to the sale of poisons. It also compels all itinerant vendors of medicine to pay an annual license-fee of one hundred dollars.

The general tenor of the law shows that the Iowa legislators intend to be very careful who measures out their drugs and poisons. It seems unfortunate that they did not show equal anxiety as to who should prescribe for them and their constituents. For a charlatan is, on the whole, more dangerous than a poor druggist.

ABUSES OF MEDICAL CHARITY AT CHICAGO.

THE report of the committee appointed to investigate the abuses of medical charity in Chicago has been presented to the Chicago Medical Society. The document is an able and just one in many respects. It states very plainly the evils that need to be remedied; and it confirms the previous statements that about one-third of the city population is treated gratuitously, one-half of these being undeserving. But the tone of the report on the whole is too full of personal feeling to be perfectly satisfactory; and in addition to this, there is an evident scattering of forces, so that the essential point first sought is much subordinated. It was thought when the discussion began that the crying evil of medical charity was in the dispensary system. But the committee having condemned this and the ring of doctors who control it, pass on and resolve that the college professors have too much of a monopoly, that druggists repeat prescriptions and prescribe on their own account too often; also that the clerical profession, "though doubtless a respectable one," ought not to be allowed to subsist upon the medical profession.

Now all this is very well, perhaps, and very true; but we submit that it would be better to have condemned things less extensively and to have presented more practical suggestions for reform. Some of the evils enlarged upon are comparatively trivial. It will be new to many to learn that the clerical profession of Chicago subsists upon the doctors of that great city. If it is so, the hardship is probably not on one side alone, and in any case the allegation is not to the point. The practice of treating clergymen gratuitously can be amended with comparative ease, and is not a very severe burden. The great and shameful abuses are those connected with the public charities, and all the energies of persons desiring reform should be concentrated here. It is better to attack one thing at a time; and it should be remembered that they get the most, eventually, who ask but a little at first. The supporters of the Chicago report will doubtless appreciate this more fully hereafter.

As the report stands now it is not a valuable one. There are in it suggestions that the young men have more to do with the management of the dispensaries; that college teachers should not monopolize all clinical material; that dispensaries should be, in general, better managed, and that a system of investigation of applicants for relief should be adopted. The only practical suggestion among these four is the last one, and there need not have been any wide research or profound thought to have produced this.

Perhaps we have expected too much of the committee and the society; but their work, though in the right direction, was certainly disappointing. The need of reform was shown, but everything further seemed to be lost sight of in the desire of those outside the ring to get even with those inside. Some practical good, however, may come indirectly even from this, since those who have the power may be stirred up to show that they can use it better than has been done in the past. And this is more than a hope or a conjecture, for we learn that some of the dispensary authorities are making efforts now to lessen the evils of which there are so many complaints. That something can be done, even under the old system, is shown by the recent report of the New York Dispensary. By the small-fee system, and close investigation of applicants for relief, this institution has cut down the number of patients from 43,623 in 1877, to 26,944 in 1879.

This indicates some progress; but it was not accomplished by sweeping resolutions of censure, or by suggestions as to the comparative merits of young and old practitioners.

THE ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF NEW JERSEY.

The third annual report of the State Board of Health of New Jersey is a document of somewhat more than ordinary interest. This is partly due to the care which has been put upon the papers it contains; and it is further due to the fact that New Jersey being a State the majority of whose population resides in towns and country villages, the feasibility and benefits of a State health board in such a population are well illustrated. It was objected at first that vital statistics could not be collected in rural districts, and that for this reason one of the prime objects of a general board would fail. And at first some difficulties were encountered. In the present report, however, we are informed that vital statistics have been very thoroughly collected, and the basis for important sanitary work in the future has been laid. These statistics show that the average death-rate for the whole State was 20.02 per 1,000. Of the deaths caused by what are termed "principal causes," which excludes accidents and unusual factors of mortality, 17.95 per 1,000 occurred in the cities, and 13.21 per 1,000 in the towns and country. Estimating the per cent. upon the basis of all the causes of death, it will be found that the mortality rate in the country is 17 per 1,000; in the cities, 23 per 1,000. This is about the proportion that has usually been found to exist between country and city. It shows that neither locality is as healthy as it should be.

A paper by Albert R. Leeds, upon "Adulterations of Food," shows much research, and is a practical and useful article. The general tenor of the investigations made by Mr. Leeds is to the effect that adulterations are not so extensive or injurious as some writers would lead us to believe. In a large number of samples of bread no adulteration except alum was found, and this was in small quantity. Baking powders contained a good deal of terra alba, and cream of tartar a still larger per cent. Sugar, milk, tea, and coffee, rarely contained harmful ingredients. On the whole, the facts given by Mr. Leeds will be likely to put people on their guard, but will not fill them with alarm.

A circular to householders, city authorities, and local boards of health, gives some very practical directions in regard to the sanitary defects to be looked out for, and the way in which they should be remedied.

The report shows throughout its contents the able hand of the secretary, Dr. Hunt, and is eminently creditable to the Board and the State.

Dropping into Poetry.—The *Dublin Journal of Medical Science* has among its medical reviews an elaborate notice of Schiller's "Lay of the Bell," and other ballads. The translation is made by Andrew Wood, M.D., LL.D., etc., who has made several other excellent translations of German poetry.

Reviews and Notices of Books.

The Therapeutics of Gynecology and Obstetrics, comprising the Medical, Dietetic, and Hygienic Treatment of Diseases of Women, as set forth by distinguished Contemporary Specialists. Edited by William B. Atkinson, A.M., M.D., Author of "Hints on Obstetric Procedure," etc., etc. Philadelphia: D. G. Brinton. 1880. 8vo, pp. 365.

There is no doubt that there is a demand in the profession for thoroughly practical works. Such a demand has in part been met by Napheys's Series of Therapeutical Treatises on Medical and Surgical Diseases, and the present work, which is a continuation of the same series, is likely to meet with similar success. Dr. Atkinson, as editor, has used rare judgment in culling from the large field at his disposal, and has laid the medical practitioner under peculiar obligations for the immense amount of valuable material presented in this volume. The best points of the leading specialists in gynecology and obstetrics in this and other countries have been given under their appropriate headings, and the commoner diseases which the practitioner is called upon to treat are discussed from a purely therapeutical standpoint, and, in that respect, leaves nothing else to be desired. The work, as a whole, is full of practical suggestions, and contains a large number of prescriptions from eminent authorities. It is of the greatest possible value to every physician who practises obstetrics or gynecology. By its perusal, the reader will be surprised to find how much can be accomplished without resort to the fancy operations which are becoming so fashionable with some of our specialists.

Physiological Laboratory, Harvard Medical School. Collected Papers, 1873–1879.

This collection of papers is marked as intended for private circulation. The contents, which has already been published at various times in different journals, includes eighteen papers. All of these are original, and some of them embody valuable contributions to physiology. Among the more interesting are that of Mr. C. H. Williams, On the Action of Bile in Promoting the Absorption of Fats; those of Dr. H. P. Bowditch, On the Force of Ciliary Motion, and on The Effect of the Respiratory Movements on the Pulmonary Circulation; and that of Mr. C. S. Minot, On Growth as a Function of Cells. Dr. T. M. Rotch has an article of practical value on Absence of Resonance in the Fifth Right Intercostal Space Diagnostic of Pericardial Effusion.

Key to Ghostism: Science and Art Unlock its Mysteries. By Rev. Thomas Mitchell. New York: S. R. Wells & Co. 1880.

The author of this work has accumulated a considerable amount of information in regard to the history of spiritualism and the scientific aspects of its phenomena. He endeavors to explain all these phenomena by certain natural forces, and includes among them a kind of pyæmic force. The motive is good, but Mr. Mitchell's scientific training is evidently not profound, and we very much doubt the value of the theories of psychic or "mental electric force" which he substitutes for ghosts in table-movings, levitation, etc. It must always be shown, first, that spiritual phenomena, so called, cannot be explained by jug-

glery, illusions of the senses, trance or unconscious muscular movements. Only when these have proved inadequate can new forces be brought in.

A System of Medicine. Edited by J. Russell Reynolds, M.D., F.R.S., with numerous additions and illustrations by Henry Hartshorne, A.M., M.D. In three volumes. Philadelphia: Henry C. Lea. 1879.

The English edition of Reynolds' System of Medicine is published in five volumes. Its bulk and cost have placed it beyond the reach of most American practitioners. In the present edition the American publishers have reduced the number of volumes to three. By printing it in smaller type and by leaving out some elaborate tables they have been able to present the work in a cheap and accessible form. The American editor has made a number of additions which are in the form partly of separate articles and partly of notes, the latter being mostly therapeutical, and tending to show some of the current methods of treatment among American physicians.

The plan of the English editor has been to assign the different subjects to prominent specialists, and he has secured as his contributors such men as Wm. Aitken, Anstie, Bastian, Bristowe, Chambers, Fox, Gairdner, Garrod, Gull, Hutchinson, Jackson, Ringer, Roberts, Maudsley, and others, about fifty of the leading English practitioners in all. Such a list of names insures the value and success of the work.

The method of treating the various subjects does not differ from that usually followed in medical cyclopædias. The thoroughness with which this plan is carried out, however, differs considerably with different authors. As a whole, it will be found that there is a less systematical treatment of the subjects than is to be found in Ziemssen's Cyclopædia.

Neither bibliography, history, nor physiological pathology are dealt with so exhaustively, as a rule. This may be intentional, however, for the system has not the bulk nor hardly the pretensions of the complete cyclopædia. The authors are, on the other hand, men who have had a wider experience and greater reputation than have most of those who wrote for Ziemssen. The volumes have also somewhat more of a solid and practical character. There are no new and radical views advocated, but the aim in general is to show the methods of practice and the pathological views at present held by the majority of English practitioners. Taken with the additions of Dr. Hartshorn, then, the reader will get a very good idea of the state of medicine as it now is among the English-speaking part of our profession.

It is, of course, impossible to give any adequate idea here of the special merits of the work. A reference, however, to what is said upon several of the more prominent, and still unsettled, therapeutical and pathological questions, may be of some interest.

As regards diphtheria, Dr. William Squire holds the usual view that it is an acute, specific, general disease, epidemic and contagious, and attended with a rapid exudation of fibrin, or non-organizable lymph. He does not identify it with croup, nor does he deem it worth while to discuss the question of bacteria. His treatment is to give five or ten grains of the perchloride of iron every three or four hours, and to use local applications of nitrate of silver or some substitute. In scarlet fever, Dr. S. J. Gee, besides the usual expectant methods, recommends strongly cold affusions in malignant cases.

The treatment for whooping-cough strongly recommended by Dr. Edward Smith is to keep the child slightly under the influence of morphine for three or four days.

A very exhaustive discussion of pyæmia is given by Dr. Bristowe. As regards its pathology he states his belief that, owing to some form of unhealthy process supervening in the region of primary disease, unhealthy pus or its elements (either serous or corpuscular), finds its way into the circulating fluid and poisons it, that this poison partly shows itself in producing in the blood a tendency to coagulate in the smaller vessels, partly shows itself by inducing more subtle but even more serious effects upon the system at large. Although some of the local effects may be due to embolism caused by travelling pus-corpuscles, thrombosis alone is the more general explanation of that obstruction of the minute vessels which leads to the secondary deposits. Dr. Bristowe believes puerperal fever to be in many cases a genuine pyæmia.

Dr. A. B. Garrod reviews the numerous theories in regard to gout, and plants himself solidly, so to speak, upon the urate of soda. This he asserts to be present always both in chronic and acute gout. Its presence in the tissues least supplied with blood causes a deposit there, which sets up the gouty inflammation.

The articles upon diseases of the nervous system are very practical and useful. They do not embrace elaborate physiological or psychological discussions. Dr. Hartshorn has added articles upon hystero-epilepsy and athetosis; he also adds a brief notice of metallotherapy. It is to be regretted that the subject of neurasthenia was not taken up by him also.

It is curious to read the pathological views of Dr. J. H. Bennett on the subject of tubercle. This he asserts, with an unwavering faith, to be due to the coagulation of molecular blastema that exudes from the blood-vessels, the blood having first got into a low state favorable to such a process. Dr. Bennett has never been able to see any such adenoid structure as is commonly ascribed to tubercles. The so-called cheesy pneumonia, he tells us, is the result of a tubercular exudation, and the solid masses of yellowish tissue which are found in phthisical lungs are all due to tubercular exudation and degeneration. But Dr. Bennett's pathological peculiarities, though they may appear absurd, are at least harmless: for no man has done more to improve the treatment of phthisis, and his remarks upon this point in the present volume are of the very best.

One does not find very much that is new in the treatment of pneumonia as discussed by Dr. Wilson Fox. He recommends bleeding at first in certain sthenic cases, and he urges the value of alcohol almost always. There is not much danger from over-stimulation, and if any error be made, it is better on that side.

The longest articles on diseases of the heart are by Dr. Sibson. His contributions are discouragingly bulky, although some of the tables are cut out by the American editor. A perusal of his work, however, will discover the mass of facts, and a conscientious and philosophical treatment of them which led Dr. Reynolds to insert the whole without abridgment.

Space forbids us extending this notice farther. We can only add that the typographical appearance of the volumes, although far inferior to the English edition, is very good. The paper is cheap, but the printing is well done, and the illustrations might be worse.

PROCEEDINGS OF THE NEW HAMPSHIRE MEDICAL SOCIETY at its Eighty-ninth Annual Session, held at Concord, June, 1879.

THE New Hampshire Medical Society is one of the oldest of the State societies, and the present report shows it to be a well-organized and energetic association.

A considerable part of the time of its meeting was occupied in discussing practical questions connected with the profession. Resolutions were passed protesting against the contract system of caring for the sick poor, a system that still exists in some counties. Resolutions were also passed urging the importance of giving to the pauper insane in poor-houses the same benefits of care and treatment extended to others of that unfortunate class. The Society endorsed the Code of Ethics adopted by the American Medical Association. The address of the President, Dr. Alonzo F. Carr, is a brief and practical one. Other addresses were given by Dr. George B. Twitchell, on Medical Ethics; by Dr. Chas. C. Odlin on The Country Doctor; and by Dr. D. S. Adams, on Differential Diagnosis of Mammary Tumors. The latter shows much care and study, and contains a valuable comparative table of symptoms. A Report on Surgery, by Dr. J. H. Wheeler, shows some of the things which New Hampshire surgeons have accomplished in the past twenty-five years. A timely paper upon the evils of the present system of Medical Testimony, by Dr. L. G. Hill, and papers upon Gynecology, with a history of Dover Physicians, and of an Epidemic of Diphtheria in Groveton, complete the volume. The typographical appearance of the Transactions is unusually good.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, March 24, 1880.

DR. PEABODY, VICE-PRESIDENT, IN THE CHAIR.

DR. LEE presented two specimens on behalf of candidates for admission to the Society.

EMBOLISM OF AORTA IN THE HORSE.

DR. LIAUTARD exhibited two specimens of embolism of the aorta in horses, which were interesting not only in connection with the extent and duration of the disease, but with the absence of symptoms until within a few weeks of death.

The first specimen was removed from a bay horse, aged seven years, which became lame forward, several months since, and, after being treated for awhile, was sent to the country. Returning in apparently perfect health, he was put to work. With the exception of a slight œdema of the sheath (prepuce), there was nothing abnormal in his condition, and he did as well as usual for fourteen days. At the end of that time he became stiff in his posterior extremities, and gave evidence of great suffering. In the evening of that day the animal was comfortable in his stall, and to all appearances in good condition. The following day the left hind leg became enormously swollen, the horse became bathed in perspiration, suffered great pain, and was seized with diarrhœa.

The next morning the leg was again of its natural size, all pains had subsided, and the animal was able to lie down or get up with difficulty. In the evening, however, about three quarts of blood were passed per rectum. Mr. Lockhart, who was attending the case, called Dr. Robertson in consultation, but no positive diagnosis was made. The opinion was expressed, however, that there were some lesions of the intestinal blood-vessels.

For a week afterward the horse remained in the same condition as last described, and toward the last he was unable to rise in his stall without assistance. At the end of that time he was transferred to the American Veterinary College for a diagnosis and subsequent post-mortem examination. An opinion was then expressed that there was an embolism of the posterior aorta or some of its branches, but no opportunity was afforded for verifying it, as the animal died before a thorough examination could be made.

At the autopsy, an aneurism of the greater mesenteric was found, of the size of an apple and entirely filled with an organized clot. The latter extended backward into the posterior aorta, obliterating its trunk, and also that of the left circumflex, iliac, external and internal iliac arteries of both sides, producing obliteration in all. On the left side the plug could be traced downward as far as the termination of the tibial arteries. The left obturator and left ileo-femoral arteries were likewise obliterated. The right external iliac was empty, but its coats were diseased. The embolism of the aorta in the situation of the circumflex iliac was evidently an old affair, as it presented a tough and bleached appearance. Extending from this, the clot was of softer and of a reddish color.

The second specimen was removed from a horse which, while being driven, became suddenly lame. This condition disappeared and returned, according as the animal was allowed to rest or was put to work. At the end of three weeks Dr. Robertson saw the case, and expressed the opinion that there existed some lesions of the arterial trunks of the right hind limb. At his suggestion, the animal was brought to the American Veterinary College. On the arrival of the patient, his skin was found to be covered with a profuse perspiration, and he was evidently suffering great pain. He walked with the greatest difficulty, and, when standing, his right hind leg would be forcibly flexed and abducted. This leg was much cooler than the one on the opposite side. After being placed in a stall, the animal seemed to be free from pain.

On rectal examination, Dr. Liautard discovered that there were no pulsations in the right internal iliac artery, and but feeble pulsations in the right external iliac artery.

A diagnosis of embolism was made accordingly. It was advised that the animal be destroyed, but the owner objected, and the treatment was transferred to a veterinary surgeon, who treated the patient for so-called "cold in the loins." After a few days the horse was returned to its owner as convalescent, but, being trotted for exercise, became again suddenly very sick, and expired in a few hours in great agony.

On post-mortem examination, the abdominal aorta was found free as far down as the origin of the internal iliac, where a clot had formed extending into the latter vessel, and also to a certain extent into the external iliac, completely obliterating the posterior tibial. Some parts of the clot seemed to have been of old formation. The arteries of the left side were also diseased, but not to the same extent.

CASE OF CONGENITAL DEFORMITY WITH FŒTAL AMPUTATION (?)—ARREST OF DEVELOPMENT, AND ADVENTITIOUS BANDS, CONSTRICTIONS, ETC.

DR. GIBNEY presented a living specimen, the case

of a child, aged three weeks, brought to the Out-door Department of the Hospital for the Ruptured and Crippled, March 22, 1880, for congenital equino-varus of left foot.

There was found, on examination, the following points of interest about the *right hand*: A slight constriction around the middle of the first phalanx of the thumb; a similar constriction, though much more marked, around the same phalanx of the forefinger—as if a thread had been bound tightly about it having a bulbous end; the last phalanx of the middle finger seemed to be about one-half normal length, while the nail is small and rudimentary; the third finger seemed to have no second phalanx, and was altogether one-fourth of an inch shorter than the little finger, and it is doubtful whether there is any motion at all at the phalangeal joint; the little finger was devoid of a nail, and round and bulbous at the end.

The left hand is normal, with the exception of a depression of the nail on the third finger. At the junction of the middle and lower thirds of the right leg is a deep groove, posteriorly about one-quarter of an inch deep, half encircling the limb, while anteriorly there are two grooves on a lower plane, yet not so deep, and extending about half-way round the limb.

The *right* foot presents the stumps of a great toe and second toe, both of which appear to have been amputated (?) in utero, through the first phalanx. The stumps left are irregular. The foot is otherwise normal.

The *left* foot is the seat of talipes equino-varus of a mild type. The varus can be easily overcome with a little force. The great toe is shorter than it should be, the arrest of growth being in the last phalanx, and there is no nail. Between this toe and the third toe is stretched a narrow band of integument, looking like cicatricial tissue, and said band is about the size of an ordinary pin, united to the skin over dorsum of the first phalanges by a broad base, and binding down the second toe, though not adherent thereto.

The fourth toe presents a deep annular depression similar to those already described on the fingers. This one, however, is deeper than any yet mentioned, and extends down to the periosteum, although the skin is not anywhere broken. The third toe has no nail, but a small depression, like an old punctured wound, instead; while the fourth toe has a rudimentary nail and a shallow constriction about its base.

A careful examination fails to detect any other deformity in other parts of the body. The child is the youngest of nine, no other one of which is in any way deformed. A cousin of the mother had double congenital talipes equino-varus. The mother experienced nothing unusual during her last pregnancy, and had a natural labor of only four hours' duration. Was attended by a midwife, whom the mother heard exclaim, "There are strings rolled about the child!" Nothing further can be learned about the case.

Dr. Lee remarked that the generally accepted theory concerning amputations in utero was ingenious, but thus far there had been no record of a case in which the severed extremity had been found. Its amputated portion was said to have been absorbed, but it was a significant fact that there should not be an exception to the rule. He believed, with many other observers, that the so-called amputations were the results of simple arrests of development.

Dr. Weeth asked if any experiments had been made with a view of testing the absorbent properties of the amniotic fluid.

Dr. Peaslee answered that the amniotic fluid was of such a negative character, and was so free from any remarkable absorbent properties, that it was used for preserving microscopical specimens.

APOPLEXY—LACERATION OF THE PONS AND HEMORRHAGE IN FOURTH VENTRICLE, WITH COMA, CONTRACTED PUPILS, TONIC SPASM, AND DYSPNŒA.

Dr. Peaslee presented the brain removed from the body of a gentleman, aged seventy-six years, who was suddenly attacked with the symptoms of apoplexy and died in the course of twelve hours afterward. The patient had been in his usual health until a few days before his death, when he complained of vague pains in his head, principally in the occipital region. At the time of his attack he was seized with a sharp, pricking pain in the forehead, immediately after which he became unconscious. This latter condition quickly deepened into coma, and death ensued in the course of twelve hours. The urine was found to contain a trace of albumen; the lower extremities were slightly œdematous. At the autopsy there was found a small amount of blood extravasated beneath the tissues of the pia mater, principally about the base of the brain and in the neighborhood of the pons. The fourth ventricle was entirely filled by a large recent clot, which had completely disintegrated the entire floor of said ventricle, and had converted the pons into a mass of detritus and clotted blood. The arteries at the base of the brain were atheromatous. The kidneys were small and atrophied. The epithelium in places was very granular, and the convoluted tubes contained an immense number of hyaline casts.

In conclusion, Dr. Peaslee remarked that the interest in the lesion of the brain was centred in the occurrence, during the coma, of contracted pupils, rigidity of the muscles of the extremity, and difficult respiration. The latter symptoms were not unfrequently noticed in connection with the lesion in question.

SCLEROSIS OF BRAIN, WITH DILATATION OF VENTRICLES.

Dr. Noyes presented a brain removed from a man who, at the time of his death, was forty-three years of age. He first saw the patient in April, two years ago, when he complained of loss of sight. The lesion upon which the loss of sight depended was easily recognized, and consisted in atrophy of the optic nerve. In one eye the vision had deteriorated to $\frac{1}{20}$; in the other eye it was nearly normal, being $\frac{20}{20}$. Very few symptoms of other lesions could be found. There were some little tardiness in passing water, very vague symptoms of numbness about the lower extremities, occasional vomiting and giddiness, and a disposition to sleepiness. So marked was this latter symptom that he would often drop into slumber while at places of amusement, and would be awakened with a great deal of difficulty. The patient admitted that within the few previous months his memory had failed, and that a certain tendency to stuttering, which had occasionally appeared in early life, had become marked and troublesome.

He was put upon the treatment of phosphorus and strychnine, but without marked benefit.

By the following September there had been a progressive loss of sight until the better eye was $\frac{1}{20}$. Aside from this, there was no other special symptom. In the following June, more than a year after Dr. Noyes saw him, he had an attack of partial uncon-

sciousness, in which he fell from his chair. In the following December he became totally blind, and he began to suffer from headache. It had been not only difficult for him to walk on account of blindness, but there was a peculiar unsteadiness in his gait. About this time his mental faculties became greatly impaired. A month afterward he took to his bed, had several convulsive attacks, suffered great depression of spirits, and on several occasions contemplated suicide. At the close of his life the symptoms which appeared were none of them of a strictly paralytic character, although there was less disposition to use the left arm and leg than the right. During the last month of his life the patient suffered from slight tremors of the right half of the body, and principally of the upper extremity of that side. Toward the last there was difficult swallowing and difficult respiration, but death ensued without special paralyses.

During the whole time that the patient was under observation his general symptoms were few, the ophthalmoscope showing progressive atrophy of the optic nerves. (Dr. Noyes exhibited charts showing the limitations in the fields of vision as the case progressed.)

Dr. Janeway saw the case during the progress of the symptoms, and was unable to make a positive diagnosis.

At the autopsy there was considerable turgescence of the dura mater and of the vessels upon the surface of the brain. The brain itself was unusually firm, and all its tissues were notable for their extreme pallor and firmness. The optic nerves were reduced in size and of a gray color. The ventricles of the brain were extremely dilated. After the most careful examination no other diseased conditions were found, and there only remained the theory that the enormous distention of the ventricles was in consequence of a hardening and shrinking of the whole bulk of the brain together. The effusion was ex vacuo in consequence of generalized sclerosis and atrophy.

Dr. Noyes presented a second specimen consisting of glioma of retina.

CASE OF DOUBLE GLIOMA RETINÆ—DEATH—AUTOPSY.

Dr. H. D. Noyes presented specimens of the above which were removed from a child, with the following history: At the age of six months the parents noticed a yellowish-white reflex from the pupil of the left eye. This attracted little attention until five months later, when the child was brought to the infirmary, where I saw it in November, 1878. The diagnosis of glioma of the retina was made; both eyes being affected. The left eye presented the most marked appearance of the disease, in which the growth was yellow and vascular, extending forward as far as the crystalline lens. Enucleation of the left eye was advised, but, not meeting the approval of the parents, it was indefinitely postponed.

During the summer of 1879 the child was taken to Germany, and while there Dr. Förster, of Breslau, was consulted. He confirmed the diagnosis, and advised and performed enucleation of the left eye in August. I next saw the child at the infirmary on January 5, 1880, and found the left orbit filled with the secondary growth, which was first observed by the parents two weeks previously. The intraocular growth in the right eye had increased in size, and could be seen with the naked eye encroaching upon the iris and anterior chamber. The child was etherized, and the left orbit thoroughly emptied of its whole contents. The tumor occupying the orbit was about the size of a small egg. A good recovery was made in about six weeks. This was followed by relief for three weeks, when the growth reappeared in the orbit, and was accompanied with severe pain in the temporal and frontal regions, and frequent vomiting. These symptoms pointed to cerebral implications, and operative procedures were deemed inexpedient. The pain was relieved with opium, and the nutrition sustained by proper nourishment. Death occurred March 18, 1880.

The autopsy was performed about twelve hours after death. The calvarium was removed and the brain exposed. Numerous adhesions were found between the dura and pia, chiefly in the region of the longitudinal sinus, on either side of the median line, and extending from the crista galli back to the tentorium. The brain substance was exceedingly soft, and was removed with difficulty. The optic nerves were divided near the commissure, and the brain placed in Müller's fluid for hardening purposes. The roof of each orbit was removed. The right eye was removed, and upon incising it the whole interior of the globe was found to be occupied by the intraocular tumor, which encroached upon the tissue of the iris and extended back into the optic nerve, enlarging it for about a quarter of an inch.

The left orbit was occupied by a tumor adherent to the floor of the orbit, projecting anteriorly, so as to cause considerable bulging of the eyelids, and extending back toward the brain, having caused absorption of the orbital plate of the greater wing of the sphenoid bone, leaving only the thickened dura mater between the tumor and the brain.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, March 22, 1880.

Dr. A. E. M. Purdy, President, in the Chair.

The Society was called to order at 8 P.M.

DUTY ON DRUGS.

The Comitia Minora reported upon the resolution introduced by Dr. Porter at the last stated meeting relative to additional tariff or duty upon any drugs or other substances used for medicinal purposes, etc., to the effect that it involved questions too important to be hastily considered, and under the assurance that Congress at its present session would not take further action upon the subject, recommended that the matter be postponed. Carried.

DELEGATES TO THE PHARMACOPŒIAL CONVENTION.

The recommendation of the Comitia Minora that delegates be appointed to represent the Society in the convention for the session of the U. S. Pharmacopœia to be held in May, 1880, was adopted.

RESIGNATION OF A MEMBER.

The Comitia Minora recommended that the resignation of Dr. Frank D. Beane be accepted, and that he be requested to return to the Society his certificate of membership. Adopted.

THE SEQUELÆ OF ACUTE DISEASES AND THEIR TREATMENT.

Dr. A. D. Rockwell read a paper on the above, in which he considered the sequelæ of several acute diseases, such as diphtheria, cerebro-spinal meningitis, and typho-malarial fever. He thought the profession at large had an inadequate idea with refer-

cure to the vast benefit accruing from the proper use of electricity in these cases. Dr. Rockwell then referred to twenty-four cases of diphtheritic paralysis seen during the last ten years, which, with only two exceptions, yielded promptly to the use of electricity — so promptly that there was no doubt as to the efficacy of the remedy. In the two cases which were not successful, the patients discontinued treatment almost as soon as it was begun. Of the twenty-two remaining cases many were of great severity, and only a few of them had been treated electrically, and, as a rule, with little regularity or intelligence. The history of one of the most interesting and instructive cases was given. A physician was attacked by diphtheria, and three weeks after the disappearance of the membrane from the throat he began to suffer from paralysis of the pharyngeal and laryngeal muscles, with absolute loss of sensation to the victim. In consequence, swallowing was exceedingly difficult, and regurgitation through the nares while drinking was unavoidable. The voice was weak and comatose. From the tenth day of the acute attack cardiac difficulty was indicated by a very feeble, slow, soft pulse, averaging 60 per minute. On one occasion, immediately after exertion, the pulse arose to 160 and as suddenly fell to 32, and resulted in what was regarded as an attack of angina pectoris that lasted for nearly three hours. The pulse remained at 32 for over an hour, when it gradually increased in frequency until it reached 58, where it remained. Four weeks after the disappearance of the patches painful fatigue was experienced in reading, and was relieved by a plus 38 spherical glass. At the same time the fingers became anæsthetic, with tingling and inability to handle small objects. The arms and legs were subsequently affected in the same manner. There was a marked tendency to constipation; numbness and hyperæsthesia of the external organs of generation. These symptoms persisted, without abatement, for three months, and were invariably increased by the slightest exercise. General faradization failed to give more than an agreeable sense of rest, and at the end of two or three weeks, the apparatus was transferred to the patient's house, so as to avoid the exercise incident to riding several miles in order to reach Dr Rockwell's office. The improvement after the change was at once marked, and all the apparent sequelæ, except that perhaps referable to the heart, had entirely disappeared at the end of the sixteenth week. Slight cardiac feebleness remained for about fifteen months. The train of symptoms which had followed

CEREBRO-SPINAL MENINGITIS,

and had been amenable to treatment, were those illustrated by a typical case. Mrs. A——, æt. 42, was attacked by the disease on the 20th of May, 1872. Her case was exceptional in its duration and severity, and she was confined to her bed for six months. Two years and a half after the subsidence of the more acute symptoms she came under Dr. Rockwell's observation, who found that she had submitted to apparently wise and judicious treatment until all the ordinary forms seemed to be exhausted, but without improvement. She was able to be about her house and to go out occasionally, but she suffered incessantly from some pain, beginning in the eyes, most pronounced over the back of the head and neck, and extending to the lower cervical vertebræ. The muscular stiffness present in the acute stage had never left her and gave her great distress. There was a chronic irritation of the intestinal tract from the mouth to the anus. For the symptoms more directly due to the meningitis, she was submitted to central galvanization as a general tonic, and for the relief of the digestive difficulties due to intestinal irritation, Dr Rockwell employed general faradization. Fifty applications were made in ten weeks. Under that plan of treatment alone the patient steadily improved, and made a satisfactory recovery.

In that connection attention was directed to the fact that sudden blows or shocks might in certain cases, result in obstinate circulatory derangement of the cerebro-spinal tract, associated with symptoms analogous to those following cerebro-spinal meningitis. The statement was illustrated by a case in which the patient had fallen and struck upon her sacrum, the immediate effects of the injury being severe pain, nausea, and slight motor paralysis of the extremities. At the end of three weeks recovery seemed complete. On taking cold, symptoms returned, but gradually disappeared. Subsequently she fell, striking on the hip. The injury aggravated all the former symptoms, and caused a perversion of vision, consisting in all dark objects appearing red. Some time elapsed before vision became natural in that respect. Central galvanization relieved the patient.

The paper concluded with the recital of the history of peculiar sequelæ following an attack of

TYPHO-MALARIAL FEVER.

The patient was a man æt. 24, who was taken sick in June, 1879, with acute dysentery, which was followed by typho-malarial fever. At the end of six weeks the fever had subsided, but the patient was quite helpless. In the following September, Dr. Rockwell saw him with his attending physician, Dr. J. O. Farrington, when he found the patient had general stiffness of all the muscles. Voluntary or passive movements were very limited. Deglutition was so difficult that solid food could not be taken with either safety or comfort. The muscles were wasted generally, and markedly in places, most apparent on the right thigh. Farado-muscular contractility of all the superficial muscles except the abdominal was greatly impaired. There were no symptoms suggestive of serious cerebral disease, but a strength of current ordinarily unendurable could be applied to the back of the neck without producing any sensation whatever. Under the use of general faradization, the affected muscles developed with astonishing rapidity; deglutition soon became natural, and complete recovery followed.

The differential indications for the use of the two currents were given as follows: First. "For the relief of the various paralytic symptoms that followed diphtheria, whether cardiac or of the voluntary muscles, the faradic current is almost always, if not invariably, indicated."

Second. "The galvanic current here is not only less effective than the faradic, but is not infrequently useless and occasionally harmful."

Third. "While localized faradization may prove sufficient in cases where the symptoms are mild and restricted in extent, general faradization should be used where the paralysis is more general and constitutional symptoms are manifest."

Fourth. "For these and analogous symptoms relating to the cerebral nervous system, the *true* constant current, or in other words, of so-called low tension and increased quantity, is preferable to the ordinary continuous current of higher tension.

The paper was accepted by the Society and being open for discussion.

Dr. Geo. M. Beard remarked that Dr. Rockwell's communication brought to mind one important general suggestion relative to the sequelæ of the diseases mentioned and that they are functional in character. It was true not only of diphtheria but also of cerebro-spinal meningitis, thermic fever (sunstroke), etc. These paralyses, whether local or general, whether of motion or sensation, were frequently functional in character and could all be treated in about the same manner. A general tonic plan of treatment would cure them. In some cases treatment was not essential to recovery; in others it would be required.

Another point worthy of notice was the difficulty in making a differential diagnosis of the sequelæ; that is, there were sequelæ of cerebro-spinal meningitis, sequelæ of thermic fever, cases of nervous syphilis, ordinary hysteria, some forms of anæmia with neurasthenia, and he saw no way of making a differential diagnosis of these conditions by the symptoms alone. The history was the only avenue through which correct knowledge of the case could be reached.

A person in absolute health, might, while walking in the street, become prostrated by heat, and for months or years present the symptoms of a hysterical girl. The same thing might occur as the result of cerebro-spinal meningitis and other affections.

With reference to treatment he had found that they were liable to relapses. The symptoms would yield to treatment up to a certain point, and then the patient would go back again. That was especially true of the sequelæ of cerebro-spinal meningitis and thermic fever.

Perhaps a patient who had suffered from thermic fever would be quite well during the winter, but always feel badly on a hot day in the summer, even when not exposed to the rays of the sun. Perhaps several years might be required to get rid of such sensations, and in some cases the impression produced by sunstroke was carried during life.

Another interesting feature in these cases was the susceptibility to stimulants and narcotics of all kinds. The person may have been accustomed to the use of tea, coffee, tobacco, etc., but, after being prostrated in this manner, cannot take even a teaspoonful without feeling the worse for so doing, or even smoke a mild cigar. It was also interesting to note that after recovery they get up to a plane when they can again use stimulants and narcotics.

There was another peculiarity in the sequelæ of those diseases, and that was the suddenness with which the symptoms might return. A physician under his care, wishing to get a medical journal, went a few blocks from his office, and while on his way back, without exposure to the rays of the sun, and on a day on which the temperature was only moderately high, suddenly became prostrated, and was obliged to stop in a drug-store and remain for some time before he could go further. He was not again suffering from sunstroke, but the heat suddenly brought him back to a lower plane, and special treatment was again required to get him up to the identical spot from which he originally fell.

Another fact concerning treatment of all these sequelæ was that it must be general as well as local. If a person came with local paralysis alone, and appeared to be pretty well otherwise, the natural tendency was to confine the treatment to the part affected, be it arm or leg. Physicians had done so, and probably would continue to do so, and yet oftentimes it was not the best treatment, whether electrical or otherwise. It was better to have general treatment regularly carried out, for another part of the body might, perhaps, be treated, and as good results obtained as if local treatment to the part in which the more prominent symptoms were manifested was the only form employed. The explanation was that the effects produced by the disease were more reflex than local. For example, application of electricity to the right foot might relieve paralysis of the left arm as well as if applied to the affected limb only. Probably, in ninety per cent. of the cases, the symptoms were reflex, and not more than ten per cent. were direct or purely local paralysis. If a clear idea was had in mind relative to reflex effects, better results would be obtained than where simply local treatment was employed.

PUBLICATION OF THE NAMES OF THE MEMBERS.

Under the head of miscellaneous business, a resolution was introduced with reference to the publication, semi-monthly, in two daily newspapers, of the names of all the members of the Medical Society of the County in good standing. On motion, it was referred to the Comitia Minora.

The Society then adjourned.

NEW YORK ACADEMY OF MEDICINE.

OBSTETRIC SECTION.

Stated Meeting, March 25, 1880.

Dr. Salvatore Cabo, Chairman; Dr. Henry E. Crampton, Secretary.

PELVIC CELLULITIS AND ABSCESS.

At a stated meeting held February 25, 1880, Dr. J. H. Merrill read a paper on pelvic cellulitis and abscess, in which he presented a resumé of the views entertained regarding the etiology, pathology, and diagnosis of the affection, and on motion the consideration of the subject was continued, and Dr. A. C. Post was invited to open the discussion on the treatment at the next stated meeting of the Section. The affection, Dr. Post said, had been fully recognized only by physicians of comparatively modern times. It might be circumscribed and occupy only a small portion of the pelvic cavity, or it might be more diffuse and occupy a very large share of the cavity of the pelvis. The cellular tissue around one organ only might be involved, or, more rarely, that around every organ in the pelvis might become implicated. The prognosis was usually favorable, so far as immediate danger to life was concerned, but in large pelvic abscesses in which suppuration was extensive, the consequences were apt to be very serious.

Treatment.—In the puerperal state, if the patient had previously been in good health, he believed that general blood-letting was beneficial. Leeching, followed by fomentations or poultices with absolute rest in the recumbent posture, was of essential service. A pillow placed under the pelvis to prevent gravitation of blood to the parts, was recommended. The bowels should be kept open with enemata. He emphasized the necessity of securing thorough evacuation of the bowels on the second or third day after confinement as a prophylactic. Diaphoretics and anodynes might be required. A nourishing diet, easily digestible, was essential. Blisters over the hypogastric region, and in certain cases an issue made with the actual cautery, might do good. In

more benign cases, when relapse had occurred, a mild mercurial course and vaginal douches of warm water had been beneficial. When suppuration occurred it was desirable to make an incision early. Examination by combined manipulation usually revealed in finding the abscess pointing above Poupart's ligament. In certain cases a considerable amount of swelling was found in the region of the fascia lata and the thigh was well flexed. In these cases an early incision was desirable and the point of election for the opening was near the anterior superior epinous process of the ilium. When spontaneous opening of the abscess occurred, the most favorable direction was through the abdominal wall or into the vagina, the next into the rectum. The unfavorable points for spontaneous opening were upon the thigh into the bladder the urethra, or the uterus. The most dangerous was the peritoneal cavity. Where no artificial opening was made, it was especially necessary to make free incisions. After suppuration was established a tonic plan of treatment was indicated. It was often necessary to inject the cavity of the abscess with carbolized water 1 to 10, but hyperdistention should be avoided.

Dr. Garretson recommended, in way of treatment, rest, ice-bladder in cases in which peritonitis was present, poultices, warm vaginal and rectal injections, and sitz baths, if the patient was able to take them. Tr. iodine, every third day, painted on the roof of the vagina, massage, opium, quinine, and opening the abscess as soon as matter could be detected. He used Bacqueliu's cautery in opening the abscess, thereby avoiding danger from hemorrhage. He did not use blisters, and regarded the prognosis in pelvic abscess as bad. In many cases it was difficult to distinguish between pelvic cellulitis and pelvic peritonitis, even at autopsy.

Dr. Gunsolus had used chlorine water instead of carbolized water, and with marked benefit.

Dr. Hunter recommended vaginal injections of hot water—hotter than the hand could bear—every two hours during the first twenty-four of the disease, and afterward at longer intervals. He also advised large doses of quinine from the beginning.

Dr. Champion suggested a rubber syringe with tubing made without metal, so as to avoid burning the patient when hot water injections were given.

Dr. Hanks mentioned aromatic spirits of ammonia—half a teaspoonful in a wineglassful of water every two hours—until the flow returned in cases of suppression of the lochial discharge with fever and pain, and other symptoms of pelvic inflammation. It was especially indicated when either a septic or malarial element was present.

The Chairman referred to a case as follows: An Italian woman, æt. 28, was delivered by a midwife of her third child on Nov. 3. She sat up the third day. She had a pain in the right side of her abdomen, with fever and chill, and was supposed to have taken cold. Three physicians treated the case as one of tympanitis and intermittent fever. Three months after her confinement she came under Dr. Caro's care, when there was constant vomiting, with diarrhœa, and the patient was greatly emaciated. There was great tenderness on pressure in the right side of the abdomen, with evidence of abscess. An exploratory incision was made, and then the tumor was freely opened and about four quarts of pus evacuated. The cavity was injected with carbolized water, one to forty, and quinine was given in doses of five grains every four hours. The patient recovered.

The Section then adjourned.

Correspondence.

ABUSES OF MEDICAL CHARITIES.

To the Editor of The Medical Record.

Dear Sir:—I trust I may be allowed to trespass upon your columns on this matter of abuses of medical charities, to answer the letter of Dr. A. L. Carroll.

First as regards the question of withholding names and places of those who perform a therapeutic discovery or act. I believe it to be a very great mistake. In my former letter I did not have Dr. Carroll in mind any more than the other gentleman who seemed to have been more directly stirred against. I think Dr. Carroll is quite right in declining to assume the championship of other people's quarrels, but this principle should not be extended to the publication of other people's ingenious, particularly when it relates to question the moral nature of some clinical teacher has under the imputation of doing a very reprehensible act. It is this lack of responsibility that I protest against, and where a man who has been injured declines to bring the wrong-doer to justice, I claim he has no right to grumble about the treatment nor to expect any sympathy.

The second part was about the duty of the surgeon to decline to treat patients because they were under the care of some other surgeon or physician. I have already said that he should refuse certain treatment, and upon that point Dr. Carroll and I are in accord. But I go a step beyond this, and maintain that the surgeon either in public or private practice is not bound to make any inquiry as to previous physicians. It may sometimes be wise to do so, but it is not a duty, nor is it imposed by any code of ethics I know of, nor, do I believe, is it generally done. I beg to call attention to the difference between enticing a patient away from another physician, and advising the patient if he or she has voluntarily sought the physician, attracted by his own personal reputation or that of the institution he serves. The question of the relation of physicians to each other needs revising and being better understood, and I trust the day is not far distant when we can dispense with a foolish code of ethics, which at the best is a stumbling-block to the profession, and to the laity foolishness.

I am, dear sir, very truly yours,

F. R. Sturgis.

16 West Thirty-second St., April 13, 1880.

POSTURE IN THE TREATMENT OF INTESTINAL COLIC.

To the Editor of The Medical Record.

Sir:—While reading the article by Dr. Burrall on "Posture in the Treatment of Intestinal Colic and Ileus," in the Record of March 27th, I was reminded of the first case of strangulated inguinal hernia which came under my notice, and which was about two months after my graduation. It was in 1844, and while a partner of my father.

I had been some hours with the patient, making taxis, giving enemas of tobacco, etc., all which had

but recently been made imperative in the lectures of Prof. F. H. Hamilton, at that time connected with Geneva Medical College, and not making progress toward the reduction of the tumor, I concluded that the wisest thing I could do would be to rid myself of the responsibility by sending for my father, then an old practitioner of forty years' experience. I did so, and shall never forget the relief which his advent into that house afforded me. As he came in, and without particularly examining the protrusion, he said, "Why don't you stand him upon his head?" My reply was, "That is not considered good surgery." Said he, "I don't care what your opinion may be as to its being good surgery; the result will show." At that he ordered a large, stout man, who had come in to see the patient die, to flex his (the patient's) legs over each of his (the laborer's) shoulders, and thus suspend the patient.

I don't now remember how many minutes such suspension required to effect reduction—certainly not many. I only know that in a short time it was complete—a much shorter period than was required of me to outlive the neighborhood opinion that "the young doctor didn't know as much as the old one about putting back *a breach*."

During the five years succeeding the period above spoken of, I well remember three cases where such a course was pursued with success.

D. Colvin.

Clyde, N. Y., April 8, 1880.

BROMIDE OF ETHYL.

To the Editor of The Medical Record.

Sir:—In view of recent utterances recorded in your columns, observations made in a single case at my public clinic here may possibly have some value. On Thursday, April 1st, I performed two comparatively trivial operations on the person of H. E. B——, æt. 19, from Holland, Mich., who appeared to be in excellent health at the time. The operations were circumcision for phymosis, and excision of part of the scrotum for varicocele.

My colleague, Dr. Victor C. Vaughn, having had a specimen of bromide of ethyl sent him from a manufacturing house in Philadelphia, induced me to use it, in this instance, in place of chloroform, which, in my experience of more than twenty years, has never disappointed me in any way, although I have used it very freely in all sorts of cases, and in patients of all ages.

The new anæsthetic was administered by a careful and experienced assistant, but the patient did not pass under its influence very rapidly.

In a short time my attention was called to the unusual appearance of the patient. His head was drawn violently backward, and his whole muscular system jerked spasmodically. The breathing had become extremely rapid, and the pulse small. It appeared to the gentleman who was administering the anæsthetic and to myself, that the symptoms were, to say the least, unsatisfactory, and I directed chloroform to be substituted. I did so, however, with reluctance, and not without serious misgivings that I had acted with undue and unjust haste.

Under chloroform the operations were soon accomplished, and the patient returned to his bed, where he very soon became conscious, and at the same time complained of feeling desperately uncomfortable. Headache, vomiting, high fever (104), sleeplessness, constipation, tenderness over the whole abdominal surface, scanty urine, great thirst, and utter inability to eat, together with the unmistakable aroma of the ethyl on his breath, were the principal phenomena which his case presented.

He was comforted at first by the assurance that his distressing symptoms would abate in a short time, but this assurance was *not* realized. For four full days, viz., from Thursday to Monday, this patient suffered from headache, vomiting, and general discomfort, to a degree that I have never seen approached by any case in which anæsthetics had been used. On Monday the aroma of the ethyl disappeared from his breath, and with it all his distressing symptoms, and to-day, April 9th, he is quite well. His wounds, strange to say, healed most satisfactorily.

The only commentary I have to make on the case here noted is, that any lingering scruples as to my having been too hasty in reverting to my old and hitherto faithful ally (chloroform), vanished completely upon reading the valuable paper of Dr. Marion Sims, published in your issue of April 3d.

I am, etc.,

Donald Maclean.

Ann Arbor, April 8, 1880.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from April 11 *to April* 17, 1880.

Horton, S. M., Major and Surgeon. After complying with instructions from these Headquarters, of January 28, 1880, to proceed to Ft. Douglass, U. T., and report to the Comd'g Officer for duty as Post Surgeon. S. O. 30, Dept. of the Platte, April 6, 1880.

Medical Items and News.

Contagious Diseases — Weekly Statement. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 17, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
April 10, 1880.	0	5	44	2	89	40	0	0
" 17, 1880.	0	5	41	5	92	46	0	0

The New Building for the Manhattan Eye and Ear Infirmary.—On the morning of April 19th, at 7.30 o'clock, ground was broken for the new building for the Manhattan Eye and Ear Hospital at the site on the corner of Forty-first Street and Park Avenue. The building is to be of pressed red brick and Potsdam sandstone, four stories high, and with a dark-blue slate roof. The style of architecture is that of the English domestic architecture of the thirteenth century, with special modifications to insure plenty of light and thorough ventilation. The entrance will be on Park Avenue. On the ground floor there will be three suites of rooms of three rooms each, for the Departments of Eye and Ear

Throat and Nervous Diseases respectively. The second story will be divided into small bed-chambers, theatre, dining room, and its others, an apartment for the resident surgeon, and an assembly hall for the patients, well lighted and with a large open fireplace. Almost every room in the hospital will have an open fire-place, with a chimney-flue big enough to carry off the smoke of coal or wood. The third and fourth floors will be divided into larger wards, and with ample provisions for isolation of communicable eye diseases. The kitchen will be on the fourth floor. There will be a steam elevator for the use of the patients and the servants. The laundry work will be done out of the hospital. In the basement there will be the system of baths, including the Turkish bath, and an ample apothecary shop. There will be a library and laboratory, and other provisions for courses of lectures. The cost of the building will be nearly one hundred thousand dollars.

Medical Night Service.—A bill for the creation of a medical night service in this city has been presented to the State Legislature, and is in charge of Senator Strahan. It is framed after the Paris plan of such service, and in accordance with the suggestions offered by Dr Nachtel at the recent meeting of the New York Academy of Medicine. It provides for the registration at the police precincts, and at such other convenient places as the captain of the precinct may elect, the list of physicians, duly authorized by the Health Board, who are willing to respond to a night-call for $3.00. The latter sum is to be paid by the patient, or by the Health Board, on presentation of a properly authenticated certificate of such attendance signed by the captain of the precinct. Consultations, when necessary, may be obtained at the rate of $6.00 each, payable under conditions similar to those of ordinary visits. Each patient is to have preference for any particular medical attendant on the list, but as a rule the one nearest shall be summoned. The physician, within twenty-four hours after his attendance, must fill out a blank containing his name and address, the age, sex, residence and disease of the patient, and forward the same to the Registrar of Vital Statistics. The service is intended only for such as have no regular medical attendant, who are strangers in the city, and who require the immediate attention of a physician or surgeon. The sum of three thousand dollars is asked as an appropriation for the effective working of the scheme. The bill has received the indorsement of many leading medical gentlemen in this city, and will doubtless be passed without opposition.

The Kentucky State Medical Society will meet in Lexington, Wednesday, May 19, at 3 P.M.

New York Neurological Society.—At a stated meeting held April 6, 1880, the following officers were elected for the ensuing year: President, Dr. Thomas A. McBride; First Vice-President, Dr. L. C. Gray; Second Vice-President, Dr. V. P. Gibney; Rec. Secretary, Dr. W. J. Morton; Cor. Secretary, Dr. Mary Putnam-Jacobi; Treasurer, Dr. E. C. Harwood; Council, Drs. J. C. Peters, J. C. Shaw, Geo. M. Beard, E. C. Seguin, and Wm. A. Hammond.

Dr. Wm. J. Morton, of this city, has been invited to deliver the course of lectures on Diseases of the Nervous System in the University of Vermont, Burlington, during the present term.

The New Jersey State Board of Health received authority from the legislature, at its last session to look after the contagious diseases of cattle, and take measures to prevent their spread. It began its work by sending out a circular to farmers and dealers in stock. In this circular a plain statement of what the Board can and will do in the matter of preventing contagious diseases is given. Co-operation is asked for, and a brief account of the symptoms and nature of pleuro-pneumonia and hog cholera is given.

Two New Clinical Laboratories have been recently established in Paris. One is for instruction in mental diseases, the other in diseases of children. Neither of these branches have been taught in Paris, clinically, before.

The Epidemic is prevailing very extensively in Brazil. In November a commission was appointed by the government to investigate the disease, and the work is now in progress.

A New Board of Health was organized in New Orleans on April 8th. Dr. Joseph Jones was elected President, and Dr S. S. Herrick, Secretary.

The Physicians of Savannah, together with the city government have made a protest against the Harris bill, giving additional power to the National Board of Health. Dr. L. A. Fulligant, in an open letter to the citizens of the South, indorses this action, and criticises rather sharply some of the work of the National Board of Health. This, he thinks, should be confined more closely to studying sanitary questions, leaving matters of quarantine to local authorities.

In the same issue of the Savannah *Morning News* is a letter from Dr. J. G. Thomas, in which he comes to the defence of the National Board, and shows the advantages that have already been secured by its operations.

Health of New Orleans.—There have been no cases of yellow fever in New Orleans during the present year.

Small-pox appeared in Chicago a short time ago and caused considerable alarm. There has been a general rush for vaccination.

Oleomargarine.—The State Assembly has passed a bill to purify that all oleomargarine which is sold shall be plainly marked as such.

Compulsory Examinations for Color-Blindness.—The Connecticut Legislature has passed a law compelling all its railroad companies to have their employees examined for color-blindness before October 1st.

Aborting Whitlow and Erysipelas.—Dr W. W. Dawson states that he has succeeded in aborting both these diseases by the use of the elastic bandage.

The Election of a Professor of Gynecology by a *concours* at the Chicago Medical College, has been the subject of comment in all the English journals. The comments have been favorable, though there is an evident undertone of wonder that so marked an evidence of progress should be found in America—and in Chicago. It seems that the professors in the English medical schools are by no means all that they should be.

American Medical Association.—The Thirty-first Annual Session will be held in the city of New York on Tuesday, Wednesday, Thursday, and Friday, June 1, 2, 3, and 4, 1880, commencing on Tuesday at 11 A.M.

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by *representation in their respective State Societies*, and from the Medical Department of the Army and Navy of the United States."

"Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: *Provided*, however, that the number of delegates for any particular State, territory, county, city, or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association."

Secretaries of medical societies, as above designated, are earnestly requested to forward to W. B. Atkinson, M.D., Permanent Secretary, Philadelphia, *at once*, lists of their delegates.

To Preserve the Strength of Magendie's Solution, Dr. H. H. Kane gives the following formula:

℞. Morph. sulph. ..... gr. cclvi.
Acid salicylic. ..... gr. viij.
Aq. distil. ..... f. ʒ xvi.
M.

Heat the water to boiling-point, add the powder, stir, filter, and keep in a glass-stoppered bottle of green glass.

Taste of Quinine.—The following vehicle is said by Mr. Pennypacker to disguise the taste of quinine:

℞. Ext. taraxaci fl. .....
Ext. glycyrrh fl. .....
Elixi simp. .....ää.
M.

Editorial Change.—Dr. E. M. Nelson has been appointed editor of the *St. Louis Courier of Medicine*.

The British Army Medical Service and the Indian Medical Service have been united under one administration. This is causing much dissatisfaction, especially in the Indian Service.

A New Anæsthetic for Dental Surgery.—At a recent meeting of the Edinburgh Odonto-Chirurgical Society, Mr. W. B. McLeod brought to the notice of the Society a new combination anæsthetic which he had been using with great success. It consisted of a mixture of ethydene dichloride in nitrous oxide gas. The dichloride is poured on a sponge and then placed in the gas inhaler; the patient thus inhales the two gases together. The time of inhalation was about one minute, and the period of anæsthesia from one and a half to two and a half minutes. In the sixteen cases where he had used this mixture there had been no sickness, no lividity, and the pulse was slightly increased in force.

Recent Experiments with Aconitine by Dr. Oulment, physician to the Hotel Dieu, show that it is very efficient in certain forms of essential facial neuralgia. These forms are the congestive neuralgias, acute in course and generally due to a cold. The dose employed was from one-half to one and a half milligrams. If there is any regular periodicity to the attacks, it is well to combine quinine.

Dr. William Ellery Channing on the Laws of Health.—The famous Dr. Channing, whose centennial has recently been celebrated, conceived a novel idea while a divinity student. He cut down his diet to less than the actual requirements of his system, in hopes that he might thus be able to avoid the necessity of exercise, and might gain more time for study. The penalty which he paid for this was a life-long dyspepsia, due, as he was told, to a contracted stomach. This misfortune of Dr. Channing's led him to appreciate highly the necessity of a thorough knowledge of the laws of health. He is quoted as saying: "The universal disease of the human race is a sufficient proof that we have not yet discovered (you would, perhaps, say have lost) knowledge of the laws of God with respect to the body. To lose consciousness of these was, perhaps, the beginning of sin. Its first effect was to spoil the pure mind of its original holy instincts, and dim its powers of sense-perception. The last triumph of Christianity may be the discovery of a perfect hygiene."

Chicago Medical Society.—On April 5th, the following officers were elected for the ensuing year: *President*, Dr. R. G. Bogue; *Vice-President*, Dr. D. W. Graham; *Secretary*, Dr. L. H. Montgomery; *Treasurer*, Dr. F. H. Davis.

Hydrangea as a Solvent of Renal Calculi.—Dr. E. B. Freeman, of Barton, Ala., writes us in very glowing terms of the virtues of hydrangea in renal calculi. He states that he was a long time a sufferer himself from this affection and had tried many remedies in vain. He was completely relieved by the use of the drug referred to. He uses it in doses of a drachm of the fluid extract three times a day. It clears the urine and relieves all bad symptoms in a very short time. A case is related of a man, aged 45, who had been under competent treatment for a year for renal calculus, but was steadily growing worse. Under the use of hydrangea he was cured in sixty days. The drug has a specially solvent effect on lithate of ammonia. Dr. Freeman is anxious to hear from other physicians as to their experience with it.

[Hydrangea is an indigenous shrub whose virtues in calculous complaints have been reported on before. It was first employed by Dr. E. Butter while a missionary among the Cherokee Indians, forty or fifty years ago. It has since been recommended by different physicians at various times, among others by Drs. W. L. Atlee, Dr. Horsley, and John C. S. Monleur. Its chemistry and active principles are not well known.]

Our Expensive Charities.—The Board of Apportionment appropriated $58,963.50, on April 16th, for various city charities. The Commissioners of Charities and Correction sent to the Board a statement that the cost of food and clothing for the Department for January, 1880, was $105,722.91 greater than for January, 1879, and that unless the appropriation for 1880 should be increased, it would be exhausted before the close of the year. On the same day, Mr. Varnum's resolution providing that the State Board of Charities examine into the expenses of our charitable institutions, and report to the Legislature of 1881, was called up, and passed the Assembly.

The Rights of Authors and Lecturers.—In reference to the recent decision of Judge Donohue, given in the case of Putnam vs. Meyer, Messrs. Putnam have made an appeal, and it is expected that the case will be argued before the General Term early in May.

Incubation of Scarlet Fever.—Dr. F. E. Clarke, of West Brighton, S. I., sends us the history of

a case of scarlet fever, in which the period of incubation is exactly determined, and is a remarkably short one. The patient, a robust young man, called, on the night of February 10th, on some relatives who had lost a child from scarlatina neatness seven days before. He had not known of the death until the evening of his call. He stayed with the family several hours. On the following evening his throat became sore, and he did not feel very well. At this time he ate a bowl of soft-shelled clams. The next forenoon, about thirty-six hours after leaving the infected house, he was taken with violent vomiting, slight diarrhœa, headache, and sore throat. The next morning, two and a half days after exposure, the rash—first seen by the nurse—appeared. The patient went through the usual course of scarlet fever. At the end of a week he was convalescent, and his recovery was rapid and satisfactory.

Dr. Curie states that this was the shortest stage of incubation he had ever seen, and only knew of three others that were shorter. Two of these were reported by Murchison, the incubation being in one case one and the other twenty-four hours. Trousseau reports a case where the incubation was only seven or eight hours.

An Oakum Plaster Splint.—Dr Gregory Doyle, of Syracuse, N. Y., writes: "I am now using, and have been for some time, an application for fractures of the leg which I call, for want of a better term, an oakum-plaster splint. In applying it, the oakum is to be merely arranged in layers or sheets, say a third or half an inch in thickness. Then a mixture of plaster of Paris and water is to be prepared of the proper consistence. In this the sheets of oakum are to be well soaked and applied to the leg, which should first be well extended and covered with a loose bandage. The soft plaster and oakum should be carefully and evenly moulded to the limb, and the operation may be completed by applying an outside or finishing coat of soft plaster. When the whole is set it makes a very firm and neat dressing, preserving the natural contour of the leg, enabling the surgeon to detect the slightest deformity if it should exist. This splint could be made movable by first applying it to one side of the leg and allowing it to set, then greasing the edges and applying the other side, and when sufficiently hard a many-tailed bandage might be applied over the whole, thus making the apparatus removable at pleasure."

Dr. B. F. Dawson has been appointed one of the assistant surgeons to the Woman's Hospital, vice Dr. A. A. Smith resigned.

Drawing up a Black-list.—At the last meeting of the Alumni Association of Jefferson Medical College, a series of resolutions was passed in regard to the medical standing of the graduates of that school. It was decided to appoint a committee, who, by proper and designated methods, should secure the names of those alumni who had disgraced the profession and college by advertising themselves, or by selling patent remedies, etc. The recording secretary is to keep a list of these names.

It further provides that every graduate who receives a certificate of membership of the Alumni Association shall agree to return the same in case of expulsion from the Society by a vote of two-thirds of its members.

New Methods of Using Volatile Disinfectants.—In the Parkes Museum of Hygiene, at London, there are two apparatus for charging the air of a room with antiseptic vapor. One consists of a ramie cross towel circulating on two rollers, the lower of which dips in a trough filled with a solution of carbolic acid or any other soluble disinfectant. The other apparatus consists of a metal box filled with Norwegian tar. The lid of the box is provided with metal fasteners, which are immersed in the tar. When the apparatus is to be used the cover is raised, and the tar-covered fasteners are exposed to the air. The pleasant odor of the tar is very quickly perceptible throughout the room. A tube is fitted to the box also, which enables it to be used as a simple inhaler, and on applying the mouth to the end of the tube and drawing an ordinary breath, a very perceptible dose of the tar vapor is obtained.

Although it is improbable that anything like real disinfection can be obtained by the above methods, no doubt some benefit is derived, in many pulmonary complaints, from their use.—*Lancet.*

Frequency of Hematemesis in China.—Two members of the Chinese Legation in London have recently suffered from hematemesis to an alarming extent. Their condition, however, has caused no alarm or anxiety among their compatriots, because they say that vomiting of blood is exceedingly common in China, and very rarely fatal. Their view of the cause is that the Chinese are in the habit of eating largely, at wide intervals. This produces a hypersemic distention of the stomach, with erosion of the walls and rupture of the vessels. Tea-drinking is also thought to impair the nutrition of the vessel walls, when indulged in by persons whose diet is poor and scanty.

Home Cultivation of Quinine.—Mr. Wilkes Weaver, of Bogota, South America, has written a letter to the Agricultural Department advocating the cultivation of the cinchona tree in this country. He says that the coasts of Northern California and of Oregon would fulfil the conditions as to moisture; the slopes of the mountains would probably furnish hilly ground very similar to that occupied in its native habitat. The temperature is also nearly the same. The cost of a plantation of a hundred acres would be from $1,000 to $1,500 per acre, and some Indian plantations yield $8,000 per acre. The barks produced by cultivation are much superior to the natural ones. The success in the artificial cultivation of the cinchona tree in India will justify similar attempts in this country, and the Agricultural Bureau will probably try to initiate some movement in this direction.

Bill to Investigate the Insane Asylums of the State.—A bill has been introduced into the State Assembly, to create a temporary commission to investigate the lunatic asylums of the State. The commission will last one year, and report to the next Legislature.

Books Received.

Brain and Mind. By H. S. Drayton and James McNeil. New York: S. R. Wells & Co. 1880.

Students' Manual of Venereal Diseases. By F. R. Sturgis, M.D. New York: G. P. Putnam's Sons. 1880.

Catalogue of the Graduates and Officers of Medical Department of University of City of New York. Dec., 1879. 2d ed. Published by Alumni Association.

Rocky Mountain Health Resorts. By Charles Denison, A.M., M.D. Boston: Houghton, Osgood & Co. 1880.

Original Lectures.

THE ERUPTIVE FEVERS.

LECTURES DELIVERED

By ALONZO CLARK, M.D., LL.D.,

PROFESSOR OF PRINCIPLES AND PRACTICE OF MEDICINE, COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

I.—SMALL-POX.

This class embraces, as I have already told you, small-pox, scarlet fever, measles, chicken-pox—the German measles, as it has been called here. (There are certain eruptive diseases, attended by fever, that come better under the class of skin affections.)

These are peculiar in several respects. First, they are contagious, and they all have a more or less definite time of incubation. This time relates to the period during which the poison, having been received into the system, lies dormant; in which it produces no symptoms that indicate disease; the period of incubation varying in different affections, and then comes the period of invasion, which is attended by fever of more or less grave character, and this varies very much in the different affections. In one of them it is only of a few hours' duration; in another, it is pretty definitely a two days' period. Then comes the eruption, and this has a varying duration in the different affections, longer and shorter. Then comes the desquamation—the period of desquamation. This varies in the different diseases that come under this class. And then come the sequelæ. And each of these diseases will have to be treated under these several heads: the period of incubation; the period of invasion; the period of eruption; the period of desquamation; the sequelæ.

First among them I will take small-pox, and I will first tell my reasons for thinking small-pox nowadays never originates *de novo*: never originates without contamination by the poison that has produced it from another case. A good many physicians are of opinion that it has an origin without the poison; but the poison travels in singular ways, and a person does not know when he is exposed to it, many times. Take, for example, an occurrence of small-pox in the town of Woodstock, Vt. I was there lecturing in the Vermont Medical College, and a case of small-pox occurred, and I was asked to see it. The man was catechized very closely in regard to whether he had been exposed to small-pox. He had not seen any small-pox, did not know of any small-pox, there had been none in town, and he had not been out of town. How could it have come? Had he received any articles of merchandise, and in that way got contaminated? No, he had not received anything; nothing but flour and groceries. He was sent off to an unoccupied house a considerable distance from the village, and the doctor visited him daily. He had an attendant that had had small-pox. Well, it came to pass that the selectmen of the town of Woodstock received a note from the selectmen of the town of Randolph six weeks later, saying that they must be guarded against a Canuck wagon containing a family of emigrants, travelling by a horse or donkey, for the family had small-pox. This man was asked if, on a certain day, he looked into a wagon that contained a family. Yes, he had, and he thought some of the children were sick. He lifted the wagon-cover and looked in. The source of the poison was then explained.

A gentleman, a superintendent of one of the mills in Lowell, Mass., took small-pox. He did not know that he had ever seen a small-pox case in his life. Dr. Greene, who was his friend and physician, undertook to work up the case. Nobody had known of small-pox in Lowell. Dr. Greene found, on careful inquiry, that an Irishwoman had come down from the upper part of the State with a child in her arms, and had gone to a tenement-house occupied chiefly by the Irish. There her child fell sick a day or two after she came, and the doctor ascertained that the sickness was small-pox. The people in the house would not allow her to remain there. She was almost forcibly ejected. Her husband was at work up at Worcester, and she went to him. She put the child under her apron, and took a car for Boston, and from Boston went up to Worcester. Dr. Greene ascertained in what car she went, and in about what part of the car she was seated; and he found, on inquiry of his friend and patient, that he went to Boston by the same train, that he was in the same car, and only two or three seats from this woman with the sick child. How many more took the disease from that particular source Dr. Greene did not ascertain, but the eruption came out at the proper time for exposure on that occasion.

I was myself in Ohio some years ago, and I went down toward the south-west on one road, to get on to another that ran north-west, and the trains did not connect, so that I had to wait two or three hours. While I was waiting, the train called the New York express came in, and this happened to be the station where the passengers got their refreshments. I stood on the broad platform that is there, and looked in the people's faces as they came out, thinking I might see some New Yorker; and one of the persons I saw struck me as having small-pox, and I approached nearer to him, and found it was the eruption of small-pox fairly out. I told the conductor he had a small-pox case there, and pointed out the man; and the man said, when I inquired of him, that he had been sick, but felt pretty well now. He had been very sick for several days, but thought the eruption that had come out on him had relieved him. He had been visiting in the northern part of Ohio, and was going home. I don't remember how far down, but a certain distance down the road. The conductor said, "What can I do with him? he has paid his fare; I cannot put him off; he has not behaved badly; has not broken any of the rules." I saw an empty freight car standing on a side track, and told the conductor to put this man in that, and take him as far as his ticket would carry him, and there drop the car. He adopted this plan. How many had been exposed to the contagion before this man was separated from the rest I do not know. They had not suspected there was any small-pox aboard. Here in New York, when small-pox prevails, it travels in every public conveyance. And women are travelling more than men with this disease; and whenever I see a woman in a car with other passengers, heavily veiled, I feel almost sure that there is small-pox under the veil. Then carriages carrying small-pox patients to the hospitals retain the poison, for nobody knows exactly how long; it may be for a good many hours at any rate, and if the same conveyance be used by a person who has not been vaccinated, he is very likely to get small-pox. It is not spread very often by means of fomites, but still fomites will carry the poison. I have no doubt it travels in the cars more than we know of.

Many cases similar to these might be cited in evi-

fact that, although a man cannot account for his having taken small-pox, the person has not originated with him, but has come from the body of another who had the disease.

One of our graduates, five or six years ago, wrote up a very excellent history of small-pox—the best I know of—as his graduation thesis. He found to his satisfaction that there were records of it eleven hundred years before the commencement of the present era in China, and that it gradually spread from China to India, and after fifteen hundred years it penetrated to Arabia, being carried by persons who were engaged in what was called the War of the Elephants. It was noted as occurring in Arabia the year after Mohammed was born, and it spread through Arabia and Eastern Asia; and when at length the Moors occupying the north of Africa made an invasion into Spain, he found that they carried small-pox with them into that country, and from that time it gradually spread over Europe and became a common disease. The expulsion of the Moors a long time after did not seem to expel the small-pox.

Now with reference to the history of a single case. I told you it has a period of incubation. That period is pretty definite, varying very little in different instances, and you may get a pretty exact idea about it when I recite to you this case. A patient—in 1869, I think it was—was received into Bellevue Hospital, into one of my wards, supposed to have the initiation of typhoid or typhus fever, whichever it might have been; but it was soon found that he had small-pox. The eruption made its appearance on a certain day, and I gave directions that he be sent to the small-pox hospital. This was rather late in the afternoon, and the boat had ceased to run. The next day was Sunday, and the boat did not run, and the chance of getting to the island was by row-boat only. There were but three patients in this ward. It was a fever ward, and the fever had about died out for that season. I thought the danger of contagion would not be very great, and he was therefore left until Monday afternoon—two days after the eruption appeared, and one day after the disease was easily diagnosticated. On walking out of the ward he passed the bed of a patient who was then sick in the third week of typhoid fever. His typhoid fever was light, and his convalescence was pretty rapid. Twelve days from the time that patient passed him in his bed, six feet perhaps from him, he began to complain of some fever, and feeling poorly. Two days after that the eruption appeared that could be recognized, or rather suspected, and a day later it could be recognized as the small-pox eruption. This man had been vaccinated, and so had the first. This second patient, also, was sent to the small-pox hospital, and both of the patients did well, having but a slight attack of the disease, and recovered pretty promptly. Now, there were just fourteen days between the occurrence of the eruption and the exposure; twelve days from the exposure to the time when he began to feel a little ill.

Physicians vary a little in their statements in regard to the duration of the incubation, but I think it is safe to say twelve days from the exposure to the occurrence of some fever, and fourteen days to the appearance of the eruption. There is nothing to characterize this period of incubation. The patient doesn't feel sick. The poison seems to have been received into his system and to be undergoing a certain change which will enable it, in a definite time, to produce symptoms.

The first stage of the actual disease is called the period of invasion, or stage of invasion, and that is the fever—and a pretty sharp fever. I remember a good many cases in which the fever was as severe, and the pain in the head as severe, as it is in meningitis—indeed more severe than it is in the majority of cases of meningitis in adults. The pain is more in the head than in the back and limbs, but these are also affected. There is occasionally a chilly feeling preceding the fever. The patient is brought to the hospital for fever; on the second day, his face is red; his pulse is full and rapid, and his headaches torment him; his tongue is slightly furred, the furr is of a whitish color; and perhaps he avoids the light on account of its hurting his eyes. This fever, which has nothing distinctive—you cannot distinguish it from the invasion of certain other fevers—will continue, ordinarily, two days. On the morning of the third day, if the fever began in the morning, you may expect to find the beginning of the stage of eruption, and the eruption is, in a great majority of cases, perfectly characteristic, so that in two days you can make pretty surely your diagnosis. It at first appears like little pimples, greater or smaller, along on the forehead from the point where the hair ends, downward toward the eyebrows, or on the neck—little red pimples, papillæ. You pass your finger over them and find that there is a distinct elevation. By the time the eruption appears the initiatory fever begins to abate, and by the time it is four days old, there may be very little fever, the pulse almost natural, and the temperature almost normal. This little pimple, or papilla, on the second day comes to have a little vesicle on the top of it—a very minute blister, not so large as the head of a pin; and in the course of that day, or by the next, that blister is extended and depressed in the centre. Now you have got your mark. The eruption—papilla in the beginning—a little red point standing out from the skin; hard, a vesicle forming upon it on the second day; that vesicle becoming umbilicated, as it is called—depressed in the centre on the third day. The diagnosis can be pretty distinctly made then. It is true that a form of ecthyma gives a pustule very similar to that of small-pox; but it is not umbilicated—it is level.

Now, to follow this pustule, or crop of pustules, to the full formation, we must take eight days—eight days from the beginning of the eruption. It increases all this time, and by the eighth day it has a form that is pretty well represented in this diagram. By the third day there is a white base to this little blister, and it looks as if there were pus in it. But it continues to increase; the boundary, the part of the skin immediately attached to the pustule, keeps a certain degree of redness. In the discrete small-pox it does not become very large—something between a quarter and half an inch. The umbilication continues, and even appears in the scab seventeen to twenty-one days after the beginning of the eruption. On the eighth day the pustule has attained its full size. The skin will become inflamed about it, and there may be even an erysipelatous state of the surface; but the pustule remains fixed, no larger than on the eighth day, and from this time it begins to dry up, first in the middle, then on the edges, and by the seventeenth day it is perhaps ready to fall off, a scab—or perhaps on the twenty-first day. When it falls off, the skin is left of a reddish color. You can see the vessels in the cicatrized part. There is a little depression, and the cicatrix is pretty well rounded, and there are little pin-holes in the bottom of it. This redness will increase if the person is exposed to the air—to the wind; and become a

pretty decided pink in all these depressions. But after three or four weeks the new vessels in the cicatrized part gain a little firmness and contract, and the redness or pink color no longer appears. There is left then the cicatrix. With that I suppose you are all more or less familiar, for everybody sees, in travelling the world over, a good deal of the cicatrization of small-pox. The depression does not always continue for any length of time. The cicatrices come up to the surface, and in some instances you will find several cicatrices running together—the pustules having run together. Here, then, is a running history of the eruption.

In this connection I must state to you that the disease is divided into two classes: one in which the pustules are single, not running together, each one forming separately; and the other in which they run together at their bases. The first is called discrete, and the latter concrete or confluent. And then there is a condition in which some of the pustules run together and others do not. That is often called semi-confluent.

With relation to the confluent pustules, you will have to bear in mind that they do not possess, as a rule, umbilication. Single pustules have it, but the concrete pustules do not. Concrete small-pox is very much more fatal than the discrete. Now, perhaps, you will get an idea from this plate of the course of the small-pox eruption. The eruption in bad cases runs into the mouth and down the air-passages, and to a certain extent down the œsophagus, and produces a cough, and occasionally a disease of the larynx that I have not mentioned to you (but probably Dr. Delafield has), œdema glottidis; so that, to anticipate a little, one of the dangers in small-pox is this œdema glottidis.

The fever of small-pox—the initiatory fever—nearly subsides, as I have told you, during the growth of the pustules; but when the pustules have attained their growth there is a diffuse inflammation of the skin extending from the pustules, and if they are numerous the whole skin may be inflamed, and the inflammation has an erysipelatous appearance.

There is now a new fever developed. It has been called the fever of maturation. And this is often pretty severe. It continues until the pustule has partly dried, and then, in a favorable case, abates. In a bad case, it may continue until death occurs. Death seems to be caused by several incidents: first, the depressing effects of the disease itself when the eruption is abundant; second, the erysipelatous inflammation that spreads from it to parts of the skin that are not invaded by the pustules; third, suffocation from œdema of the glottis, or the effects of the inflammation in the trachea; fourth, a kidney affection analogous to Bright's disease, but rarely attended with absolute suppression, but with albuminuria and casts. The sympathies between the skin and the kidneys are so alive that you can hardly suppose so formidable a disease as this upon the surface would not in some way affect the kidneys, and on examination it is found that it does. The period at which small-pox is most frequently fatal is the second week. Not at the time of the maturing of the pustules, but in the fever that follows that maturity. The amount of mortality from this disease can be better taught by figures than in any other way, and as I have some here I will read them to you. They are taken from the statistics of the small-pox hospital in London.

Mortality among those who had been vaccinated, 6.56 in 100 persons; and in those who have particularly good cicatrices, 2.52 in 100 persons; in the unvaccinated, taken as a whole, young and old, the mortality in the London Hospital is 37 in 100. But in the discrete small-pox the mortality is only four per cent. Observe the difference: of the slightly confluent, eight per cent.; and of the confluent small-pox, fifty per cent. Then there is a marked difference in the mortality depending upon age. In children not yet one year old, all die; the mortality is 100 per cent. In persons above sixty, the same thing. That is, if they have not been partially protected by vaccination. Children under one year of age do not recover; between one and two years, rarely (that statement is taken from Trousseau); persons over sixty almost never; and pregnant women very rarely. And in this connection it is proper to say that women having small-pox almost always menstruate, and sometimes pretty freely, whether it is their proper period or not. And there is some disposition to a hemorrhagic tendency in the affection, for there is a form of it called the hemorrhagic small-pox. I have been pestered with that a good many times, and I will tell you how. A case coming into a hospital that is devoted to general diseases comes as a case of fever, and on the day when the eruption should occur, if it be small-pox, it does not occur, and instead of it, little spots of ecchymosis, and it will be two or three days after the eruption should appear—perhaps four days after—before anything that can be called really suspicious as a pustule makes its appearance. Meantime the disease can spread. Persons lying near this sick person may take it. Persons who have charge of removing the patient may take it. I have several times, when perplexed with such a case, called specialists—those who devote themselves to skin diseases; and I have found that they were just as much puzzled as I was. The case has no characteristic marks except the spots of ecchymosis, and they are just about as numerous as the pustules should be. That hemorrhagic variety of small-pox has, in my observation, always been fatal. I met it in consultation in a case of a robust, healthy young woman, and I told the doctor who called me that I had never seen a case recover, but here was a good subject, and we would try our best to carry her through; if we could carry her to the fifteenth day, through the fourteenth day, I felt confident that we might hope for a good result. As we found her sinking we pressed the alcoholics, and kept up her pulse pretty well up until the evening of the fourteenth day, when it fell as suddenly as a bucketful of water would fall if the bottom were to fall out. She went right down. Dr. Bulkley, father of the Dr. Bulkley with whom you are acquainted, told me he had had one or two recover; but physicians generally perceive that these are almost inevitably fatal cases—those of the hemorrhagic variety.

There is a point here that has not been published in your books, and it may be of some use to you. In the experience that I had in the New York Hospital, as junior and senior walker and house-physician, which lasted two years, I saw quite a number of cases that were admitted for fever which turned out to be small-pox, and were sent to the small-pox hospital; and of all these cases not one left the small-pox behind it. No person who assisted the patient to get to the carriage, or to get to the hospital, took the disease; no patient lying alongside of him took it; and a great many years after I went to the superintendent of the hospital, and asked him what had been the experience after I had left it until then. He said it had been the same. There had been but one case in which the contagion

had been left behind, and that was a case of the hemorrhagic variety, in which the diagnosis could not be made until the third or fourth day. The same thing is true of Bellevue Hospital. All cases that I have observed there, received in the belief that they had fever and were afterward sent to the small pox hospital, have not left the disease behind them, if they were sent at the time of the beginning of the umbilication of the pustule. My conviction is strong that up to that time there are no emanations from the body that will poison another person. I see the statement made that small pox is contagious in the stage of attack during the fever. I do not believe it.

You will, perhaps, be some time consulted by a person who says "Doctor, I went to see my friend, Mr. So-and-so, and he was sick in bed, and I stood by the bedside for some time, and now they say he had small-pox. What can I do?" "How long had he been sick when you saw him?" "Well, three days—two days for the invasion and one for the eruption." "It is not, then, contagious, and you need give yourself no concern about it. If you have had no other exposure you will not have small-pox." At the same time he will be very likely to want you to vaccinate him. Vaccinate by all means, but not because he was exposed at that time, but that he may be again.

You see that this is a very formidable disease, and a curious portion of its history is, that the mortality from it has been, in the last two or three years, reduced in New York to almost nothing. I have a memorandum here of seven years' mortality of small pox, not including the last year, as the statistics are not yet published. In 1872 there was a mortality of 910 by small-pox alone, in a general mortality of 32,000. In 1873, 117; in 1874, 484; 1875, 1,280 in a mortality of 30,000; in 1876, 315 in a mortality of 29,000; in 1877, a mortality of 14 in 26,000 deaths from all causes; in 1878, 2 deaths only in a mortality of 27,000; and I believe it has not much exceeded that in 1879. I do not know why this exemption from the disease—for it is thought it will be mortal in a certain proportion of cases wherever it prevails. I do not know but it is due to the efforts of the Board of Health. When this large mortality occurred they busied themselves in causing the vaccination of everybody that would be vaccinated, and urging those who were reluctant. A corps of a considerable number have been busy every summer, urging vaccination upon the poor people. They may have effected a degree of protection that they probably never hoped for. In looking at the weekly bills of mortality, I find them running on for weeks without a single entry of small-pox, and so in the reported bulletins of weekly journals. There is published in some medical journals a weekly report of the prevalence of contagious diseases—small-pox, measles, scarlet fever, diphtheria, etc., and week after week there will be no report of a single case. I do not know how we can get that exemption, unless it is by the efforts of the vaccinating corps.

The amount of protection that vaccination gives was perhaps exaggerated by Jenner, who was its author; but it is a little too early to consider that.

Varioloid is small-pox pure and simple, but modified by a certain degree of protection that the system has received, either from a previous attack of small-pox, or from vaccination; and that it is small-pox is made apparent by the fact that persons who have varioloid diffuse the small-pox among the unprotected. The disease that comes from them is pure, unmodified small-pox, unless the modification comes from some protection in the system. I have already told you that the degree of mortality that occurs in this modified small pox or varioloid is about six and a half per cent. of those who are attacked, and the reason of that is that the supposed protection is really none. It is not a protection at all, either the vaccination was imperfect, or the protective power has died out, or the patient was more susceptible to small pox than the average of men, and one vaccination was not a protection against it. It happens, then, that in some who have been vaccinated the small pox is taken, and runs its regular course, subjecting these persons to the same degree of mortality that small pox itself does—viz., thirty-seven per cent.; but in much the greater number there is a modification of it that I can describe to you under three heads: 1st. A development of the disease such as you see indicated on the diagram I show you; an early termination, small pustules drying up quickly and leaving no cicatrix. That indicates the least degree of protection that is effective, and that is the form of disease that occurs in a good many who have been vaccinated. In others in whom the protection seems to be nearer complete, the papulous form; there will be but few of them, and a little blister will form on the top of them on the second day, and by the fourth day that blister has dried down into a little horny substance. It is not a very elegant phrase, but in the olden times there was a something called horny pox, and it was this. These little eminences are formed, having a dry scab upon them, and feeling hard, and with that the signs of the disease pretty quickly disappear; and then still in others papulæ form, and, without the production of the little blisters upon the top, shrink away and disappear. The first two of these are much the more common. There is no maturative fever in varioloid. The first fever occurs very much like the fever of small-pox, perhaps with equal vehemence, and then it dies away as an eruption appears, and there is no fever afterward. These several forms of modified small-pox, called commonly varioloid, you will see something of; and almost always, at least in the far greater number of cases, it will be the modification that limits, that diminishes the duration of the eruption, diminishes the size of the pustule, and does not let it go deep enough into the skin to produce cicatrices that will be enduring.

Now, a few words in regard to the treatment of small-pox. The first great fact that you are to remember when you have charge of such a case is, that it is a self-limited disease, and must run a course, and that your business is to keep your patient alive until its natural termination. In very many cases of small-pox that tend to recovery, really very little treatment is required. The general treatment may be almost entirely omitted; and those that do require treatment will require treatment for symptoms. If there is exhaustion, you would use your alcoholics in the same way that you would in typhoid fever. If there were a wide erysipelatous inflammation you would have the room kept pretty cool, so that the coldness of the air would modify the action of the inflammatory disease. If the patient be restless, if he have the irritative fever, give him opium to quiet the nerves. If he have suffocative symptoms, you will have to look into the throat, or feel the throat, and ascertain whether there is any œdema glottidis; and if there be, your duty will be to perform the operation suggested by the late Dr. Buck, to scarify the watery tumor upon the top of the larynx with a sharp instrument of some sort, the

blade of which is protected by winding something upon it, the point only left open to pass down upon your finger, and make little scratches into the bladder of water that constitutes œdema glottidis. There is no specific. It is not more than five or six years since that it was published to the profession that a certain plant would cause an abortion of the disease, and would cure it in every instance. The more it has been used, I believe, the less it has been found that the statement is true. We do not claim now, at any rate, that there is anything that will cut short the eruption; and the probability is that if you could find anything that would do it, it would do more harm than good. It is a loathsome disease—loathsome in the condition to which it reduces the patient, and in the effluvia that arises from his body. The only question of much importance in regard to the treatment is, can you produce a condition of the pustules that will not leave cicatrices? I believe that question can be answered affirmatively. But the particular treatment that you will subject these pustules to is of a very variable kind, if you follow the authority of one or another person. If early in the disease these vesicles be pricked with the point of a lancet, and kept empty, the cicatrization, it is said, will not occur.

Original Communications.

LIPÆMIA AND FAT EMBOLISM IN DIABETES MELLITUS.

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In diabetes mellitus, death occurs in several ways. Thus it results very frequently from pulmonary consumption, and occasionally from local diseases, which in themselves are of little moment, but which end fatally in consequence of the slight resisting power of the system. Again, death may take place slowly from general exhaustion, or it may occur rapidly, being preceded for a few hours or days by marked respiratory symptoms, and by the condition known as "diabetic coma."

In examples of the last class, the alterations in the respiration consist of a moderate increase in the number of the respiratory movements, and a very decided increase in their fulness and depth; these changes being independent of any difficulty in breathing, and unaccompanied by the physical signs of pulmonary or cardiac lesion.

Diabetic coma occasionally appears suddenly, without any premonitory symptoms; at other times, after a short period of general agitation, breathlessness, and gastric pain, the patient becomes listless and drowsy, with a feeble, frequent, compressible pulse, and a cool skin, and gradually passes into a condition of profound stupor.

Setting aside the old idea of the coma being due to uræmic poisoning, and the breathlessness to pneumonia, there are two ways in which the occurrence of these conditions may be explained—first by the presence in the blood of acetone, produced by the fermentation of grape-sugar in the stomach, or formed in the cells of the liver; and, secondly, by the existence of lipæmia and fat embolism.

The theory of acetonæmia, supported by many authorities, but especially by Kussmaul,* is based upon the detection of acetone in the blood, the urine, and the breath of diabetic patients, and upon the fact that animals poisoned by acetone show, at first, symptoms of intoxication with slow breathing, and afterward become comatose, the respiration being slow, somewhat stertorous, unusually deep, and finally irregular. To produce these results, a large quantity of acetone is necessary, and although the features of poisoning do resemble those attending diabetic coma, it is questionable whether it is possible for a substance which escapes so readily from the lungs, to collect, under ordinary circumstances—that is, when generated in the system—in sufficient quantity to cause toxic symptoms. Kussmaul suggests, however, that the continued introduction of acetone into the blood may, in certain debilitated conditions of the nervous system, occasion a chronic poisoning, which may suddenly assume an acute form, just as chronic alcoholism in drunkards breaks into delirium tremens.

As a further proof of the dependence of the coma upon acetonæmia, Dr. Balthazar Foster† asserts that the peculiar creamy condition of the blood, often observed in glycosuria, can be artificially produced by the addition of acetone to healthy blood, and that this condition is not due to the presence of an excess of fat, as the appearance would seem to indicate.

The theory referring the coma and breathlessness to slow carbonic acid poisoning, due to fat embolism of the pulmonary vessels, in turn depending upon an abnormal quantity of fat in the blood or the state of lipæmia, originated with Prof. Sanders and Mr. D. J. Hamilton, who, in a paper published in the *Edinburgh Medical Journal* for July, 1879, detail the clinical histories and the results of the post-mortem examinations of several cases of diabetes, and summarize the data leading to their hypothesis in the following manner:

"1st. The lipæmic state of the blood present in all the cases known to us.‡ 2d. The anatomical evidence of fat embola, chiefly in the minute pulmonary vessels and capillaries, and to a less extent in those of the kidneys and other organs. 3d. The entire similarity of the histological appearances in the lungs to those found in fatal fat embolism from fractured bones. 4th. The analogy in the symptoms of dyspnœa and coma in fat embolism from fracture, as compared with the diabetic conditions. 5th. The quantity of acetone found in the blood in diabetes seems too small to account for the fatal symptoms. 6th. Acetone added to blood does not produce either the naked eye or microscopic appearance of lipæmia. In this respect our experiments entirely differ from those of Dr. Foster. The milk-like appearance in our cases was always proved to be due to oil, both by microscopic examination and by the removal of the milky appearance by the action of ether, as well as by the staining with perosmic acid. Nothing identical with this can be produced by adding acetone to blood. 7th. The phenomena induced in animals (rabbits) by administration of acetone are similar to those of alcoholic intoxication, and the labored breathing does not present the intensity of the severe diabetic dyspnœa. 8th. In animals poisoned with acetone the blood does not present any appear-

* Deutsches Archiv für klinische Medicin, Aug., 1874.

† Brit. Med. Journal, Jan. 19, 1878.

‡ The presence of an "abundance of fat" in the blood of diabetics, so as to give the serum, that separates on standing, a milky or chylous appearance, was long ago noticed by Dobson and Rollo, and has been confirmed by many subsequent observers.—Senator: Ziemssen's Cyclopædia, vol. xvi., p. 890.

an[illegible] albuminoid or mucous pus, like those of the peculiar blood of diabetes.

As the number of observations made by Prof Sanders and his co-laborer is far too limited to admit of a definite conclusion in regard to the truth of their theory, any additional evidence is valuable. Consequently the accompanying record of a patient recently under my care, is of importance, the case is also interesting on account of the unusual ophthalmoscopic appearances.

Henry W[illegible].* aged 20, white, born in Pennsylvania, a farm laborer, of temperate habits, was admitted to the Medical Ward of the Episcopal Hospital on November 8, 1879.

His family record was good. He had no syphilitic history, and, with the exception of a fracture of the left fore-arm in early boyhood, he had enjoyed good health until the fall of 1877, when the illness for which he entered the hospital began. His average weight previous to this had been 140 pounds. The first symptoms of ill health that attracted his attention were frequent micturition, together with a decided increase in the quantity of urine voided. There was at the same time a morbid thirst, and he soon began to lose flesh and strength, although he consumed an unusually large quantity of food. During the year preceding admission, his diet had consisted chiefly of mush, potatoes, and bread.

When admitted he was weak and much emaciated, weighing only 111 pounds. He answered questions slowly, his face had a heavy expression, his cheeks and eyes were sunken, his lips were pale, his hair was dry and lustreless, and his skin was harsh, scurfy, and cool to the hand. The edges of his tongue were clean, red, and smooth, while the centre was lightly coated with a yellow fur, the saliva was acid, there was occasional hiccough, intense thirst, and inordinate appetite. There was some flatulent distention of the abdomen, with a sensation of burning in the hypogastrium, and the bowels were obstinately confined. The pulse was 88, of very moderate force; the respiratory movements counted about eighteen per minute, and were regular and deep. An examination of the heart and lungs revealed nothing abnormal, there was no increase of the hepatic or of the splenic dulness, nor any enlargement of the superficial lymphatic glands. The urine was passed at short intervals and in large quantities, it was light colored, cloudy with mucus, acid in reaction, had a sp. gr. of 1.031, and contained a large amount of sugar, and a trace of albumen. The patient complained of dimness of vision, and cataract being suspected, he was sent to Dr. Albert G. Heyl, Ophthalmic Surgeon to the hospital, for examination. (See report.)

He was ordered for breakfast, two soft-boiled eggs, half a pint of milk, and one thin slice of thoroughly toasted bread; for dinner, twelve ounces of meat broth, a reasonable supply of roasted or broiled meat, and a slice of toast; for supper, one pint of milk, and a slice of toast; between meals he was allowed half a pint of milk. The quantity of water was not restricted, though he was directed to restrain his thirst as much as possible. In addition, a mixture of ten grains of bicarbonate of sodium and half a fluid ounce of compound infusion of gentian was prescribed thrice daily, and orders were given to keep the rectum unloaded by the use of simple enemata.

At the end of three weeks he had gained eight pounds in weight, but there was no change in the symptoms beyond the development of slight oedema of the feet and ankles. Another half-pint of milk, and a cup of either tea or coffee, without sugar, were ordered for breakfast, and as the bowels remained constipated, a pill composed of ext belladonna, gr. ¼, ext gentianæ, gr. 1, ext colocynth comp., gr. 1, and oleum cari, gtt. ss., was administered when necessary to secure an evacuation.

The oedema disappeared in three days, and there was no further change until December 8th, when it was noted that there were a number of minute pustules upon the chest and back and on the dorsal surfaces of the arms, and that there was a trifling dry cough, and a return of the oedema. A careful physical examination showed exaggerated pulmonary resonance, puerile respiratory murmur, and the presence of tenderness on palpation in the hypogastrium. The heart, liver, spleen, and lymphatic glands were normal. The respiratory movements were unusually deep, about 18 per minute, the pulse varied from 84 in the morning to 100 in the evening, and the axillary temperature from 97 to 98 F. The saliva was tested and found to be free from sugar. A portion of the contents of the pustules was also tested for sugar, with negative results.

On December 13th he weighed 117¼ pounds; he complained of headache, of a sense of weakness in the legs, and was more heavy and listless. The cough had ceased. On the 17th a large furuncle commenced to form in the right cheek. After this he steadily lost strength, his weight fell to 113¼ pounds, and on the 23d he was unable to leave his bed; small doses of opium—gr. ss. thrice daily—which had been administered in place of the alkaline mixture for several days, were discontinued on account of the increasing drowsiness, though, as the pupils were unaffected, this was probably an independent symptom. The respiration continued very deep, counting 20 a minute; the pulse was weak, 80 in the morning, 96 in the evening, and the temperature ranged from 96.5 to 97.5°.

On the morning of December 24th, he had severe pain in the left infra-mammary region, the pulse was 96, quite feeble, the temperature was 99.5 and the respiration 20, still deeper than before, and attended by movement of the nostrils. The decubitus was dorsal, with the head and shoulders somewhat elevated. There was greater somnolency and prostration. A flaxseed poultice was applied over the seat of pain, and digitalis and carbonate of ammonium administered. At 1 A.M., on December 25th, he passed into a condition of coma, and death occurred seven hours later.

During the patient's life several microscopic examinations of the urine were made by Dr. Simes, the Pathologist of the Episcopal Hospital, and by myself, resulting in the discovery of nothing more than sugar fungus.

The following table shows the results of seven analyses of the urine, the quantity of sugar being estimated by Roberts's fermentation test:

Date.	Quantity in 24 hours.	Color.	Reaction.	Sp. gr.	Quantity of sugar to oz.	Remarks.
	Oz.				Grains.	
Nov. 18.	181	Light yellow cloudy.	Acid.	1 031	28	Trace of albumen.
" 25.	108	"	"	1 031	29	No albumen.
Dec. 3.	118	"	"	1 034	30	"
" 9	80	"	"	1.030	25.5	"
" 12	48	"	"	1 032	27	"
" 16	58	"	"	1 032	25	"
" 22	56	"	"	1 029	22	Indican.

* Clinical history compiled from the ward notes of Dr. H. D. Harvey and Dr. T. H. Cathcart, resident physicians.

The next table shows the average daily amount of fluid consumed, and of urine voided for each week of treatment:

Date.	No. of oz. drank daily.	No. of oz. voided daily.
November 10–16, incl.	116.0	100.7
November 17–23, incl.	124.0	132.4
ember 24–30, incl.	115.1	108.5
ecember 1–7, incl	120.8	92.4
December 8–14, incl.	116.6	69.6
December 15–21, incl	114.0	60.8
December 22–24, incl.	117.3	64.0

The blood was examined on several different occasions, and always presented the same characteristics. On pricking one of the fingers, the blood flowed slowly, had a peculiar brick-red color, and when a drop had collected it was either traversed by one or two milky veins, or its upper surface became overlaid by a milky stratum. This milky appearance was somewhat more marked when pressure was made on the punctured finger to induce a greater rapidity in the flow. The blood coagulated very tardily and imperfectly. Under the microscope, with a power of 250 diameters, the rolls of red corpuscles were poorly marked, and interspersed with these were observed occasional large collections of fine granular matter. Upon treating with ether, numerous large oil-globules appeared scattered over the field.

On December 10th, my colleague, Dr. F. P. Henry, kindly made a count of the blood by means of Gowers' hæmacytometer, with the following result, viz.: number of *red* corpuscles to cubic millimetre, 4,205,000, the normal being at least 5,000,000; number of *white* corpuscles to cubic millimetre, 50,000, or 1 white to 84 red cells, the normal being 1 white to 350 or 400 red cells.

The *autopsy* was made twenty-eight hours after death. The body was greatly emaciated; the pupils were dilated.

The *brain* weighed forty-nine ounces. There were several spots of opacity, about one-fourth of an inch in diameter, in the pia mater on the convexity of the hemispheres, and the veins were distended with blood. The brain tissue was firm, and presented no gross abnormal appearances. An unusually large quantity of cerebro-spinal fluid escaped when the skull-cap was removed.

Upon making the incisions necessary to inspect the thoracic and abdominal cavities, it was observed that there was an absence of subcutaneous adipose tissue, and that the muscles were rather dry and brownish in color.

Lungs.—Left lung weighed twenty-five ounces. The upper extremity of the lower lobe seemed to be in a state of gray hepatization, a section being noncrepitant and sinking when thrown into water. This condition of hepatization gradually faded into one of intense congestion, and this again into healthy lung as the base of the lobe was approached, the whole area involved being equal to one-fourth of the affected lobe. A few flakes of recently-formed lymph were attached to the pulmonary pleura over the region of hepatization, and the costal pleura directly opposite was injected. The remainder of both pleural surfaces was normal; the pleural cavity contained nearly two fluid-ounces of salmon-colored, milky fluid. Right lung weighed eighteen ounces; there was moderate congestion of the posterior portion of the lower lobe, but no other alteration.

The *heart* weighed eleven ounces; its tissue was pale and flabby; the valves healthy. The left ventricle held a small post-mortem clot; the right ventricle a large anti-mortem clot, which extended far into the pulmonary arteries.

The peritoneal cavity contained a small quantity, estimated at three fluid-ounces, of clear, straw-colored liquid. The layers of the peritoneum were perfectly smooth and shining. The *stomach* was double the natural size; its mucous membrane was thickened, markedly mammillated, and showed numerous points of ecchymosis. The mucous membrane of the *small intestine* was congested, and this portion of the gut was filled with a thick, yellow material, having a vinous odor. The *large intestine* was filled with lumps of feces; its mucous membrane was also congested. The *mesenteric glands* were normal in appearance. The *pancreas* was unaltered. The *spleen* weighed seven ounces, and presented nothing abnormal. The *liver* weighed four and a quarter pounds, was engorged with blood, and was moderately firm in texture. The capsule over the upper surfaces of both lobes was thickened and opaque. The *kidneys* weighed together seventeen and three-quarter ounces; they were congested, apparently somewhat fatty, with non-adherent capsules. The *urinary bladder* was healthy. The blood, which flowed from the vessels and organs during the inspection, was darker in color than expected, that from the brain only being quite similar to the blood drawn from the finger during life.

A portion of the blood contained in the great vessels and viscera, a portion of that which escaped mixed with cerebro-spinal fluid on removing the brain, together with some of the liquid from the thoracic and abdominal cavities, and sections from the consolidated part of the left lung, from the liver, the kidneys, the medulla oblongata, and the semilunar ganglion, were carefully examined by Dr. Simes, with the following results:

REPORT OF DR. J. H. C. SIMES.

After standing for two or three days the several fluids presented different gross and microscopic appearances.

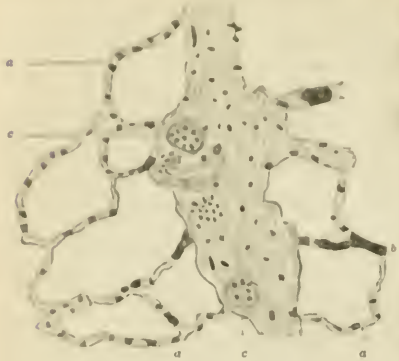
That from the peritoneal cavity was clear, slightly yellow in color, and contained a very minute amount of sediment, which consisted of leucocytes and epithelial cells, the usual elements of serous exudations.

The fluids from the thoracic and cranial cavities separated into three layers, the upper, an opaque, white, and thick liquid, contained numerous minute granules and oil-globules of various sizes; the middle stratum was formed by a red liquid, and the lowest, or sediment, was red in color, and was composed of white and red blood-corpuscles, with an occasional epithelial cell.

The blood from the great vessels and viscera deposited a dark red substance, consisting of blood-elements in large numbers; above this was a deeply colored, red fluid, and upon this again, floated a red, opaque thick liquid, in which the microscope revealed red blood-corpuscles, and numerous granules and oil-globules. The supernatant oily stratum in this and the former instances was equal to about one-sixth of the bulk of the fluid set aside for examination.

A thin section of the lung was made by the freezing microtome, after the alcohol used in hardening the tissue had been removed, by soaking in water. This was submitted to the action of one-tenth per cent. aqueous solution of perosmic acid. The object of freezing was to avoid the employment of wax and

oil as crystallizing agents, and so eliminate a source of error in estimating the effect of the staining. The section thus prepared was found to present the characters shown in the accompanying illustration.



It will be noticed that the capillaries in the alveolar walls have in their interior a material presenting itself in the form of small, generally spherical, collections (*a*), and stained deep black by the perosmic acid; a coloration proving the little masses to be fatty in nature. At some points the fat has accumulated in oblong branching masses (*b*), suggesting very evidently, the filling of the capillary blood-vessels and their collateral branches. Transverse sections of the small arteries (*c*) in the larger trabecula of fibrous tissue have their lumen congested, and among the blood corpuscles are seen globules of fat, stained black by the acid. The microscope, therefore, demonstrated the fact that the pulmonary blood-vessels were occluded by fat emboli, a result to be anticipated from the state of the blood.

In addition to the plugging of the capillary vessels, the examination of a carmine-stained section of the lung showed the characteristics indicative of croupous pneumonia. To determine that the appearances caused by the perosmic acid were not due to a fatty metamorphosis of the cells filling the alveoli—a pathological change well known to take place during the course of croupous pneumonia—a section taken from the lung of a patient dying of croupous pneumonia, at about the same stage of the disease, was similarly prepared. This presented none of the peculiar features observed in the lung of the diabetic.

Sections from the liver and kidneys were cut and stained in the same manner as that from the lung, and showed, under the microscope, an identical, though less extensive, plugging of the blood-vessels by fat emboli.

A section from the liver, stained by carmine, showed a marked degree of interstitial hepatitis. Both the inter- and intra-lobular fibrous connective tissue were found to be decidedly increased in amount. The cells constituting the parenchyma of the gland were more granular than normal; the nuclei, in many instances, being concealed by this granular condition of the protoplasm. A pigmentation of many of the hepatic cells, by bile coloring matter, was also evident.

In a carmine stained section from the kidney it was noted that the cells lining most of the uriniferous tubules were in an advanced stage of granular change. This change was so great in many of the cells that they had refused the staining and were yellowish in aspect. The interlobular tissue was much increased in amount, separating the tubules to a considerable extent, and its fibrous nature was very apparent. The adventitia of the blood-vessels was manifestly thickened; so, too, were the capsules of the Malpighian bodies. These alterations established the existence of interstitial nephritis, with granular degeneration of the parenchymatous cells.

A transverse section of the medulla oblongata, stained with carmine, presented very marked alterations of the nerve-cells. In place of the angular, polar, or multipolar, distinctly nucleated and nucleolated nerve-cells of the normal condition, there were seen round and oval, structureless or hyaline, slightly yellow cells without nuclei, nucleoli, or polar prolongations. The altered appearance of the cells was not confined to any special group, but was observed throughout the whole section. At the same time, although the change was general, it was not equal at all points. For example, in the gray substance of the olivary bodies the cells were all more or less altered, while in most or in all of the other gray masses of the section there were some cells possessing prolongations, having nuclei and nucleoli, and being free from hyaline change, in a word, being normal. The whole section gave an impression of being more granular than usual; this, perhaps, was due to the treatment necessary in preparing it for microscopical examination. The blood-vessels were thought to show increased cell-proliferation in their endothelium, for when seen in transverse section the number of nuclei, colored by the carmine, was greater than in vessels of the same size in health. The epithelial lining of the floor of the fourth ventricle showed nothing abnormal.

A section from the semilunar ganglion, stained by carmine, exhibited no pathological change.

DR. ALBERT O. HEYL'S REPORT.

The patient presented himself for examination on November 11, 1879. Examination with the ophthalmoscope showed that there were opacities in each crystalline lens; the pupils were dilated with atropia, and it was then found that the nucleus of each lens was opaque; the cortical structure, though sufficiently clear for examination of the interior of each eye, was traversed by radiating spikes of opaque lens tissue.

The moment my eye caught the details of the fundus, I saw the remarkable appearance which I shall endeavor to describe. The appearance was the same in each eye, and I was able, through the skill of Dr. Charles B. Nancrede, to obtain a very accurate painting of it. This picture was presented at a meeting of the Philadelphia County Medical Society, held January 30, 1880. I regret that it is not available for illustration of the following description:

The fundus was free from any evidence of the existence or pre-existence of inflammation; the nerve margin was well defined, the vessels were not tortuous; no retinal lesion, no hemorrhagic clots were seen.

The abnormal appearances which attracted attention were:

1. The abnormal color of the blood in the retinal vessels. As is well known, the retinal vessels are, with the exception of the optic papilla, the most striking objects seen in ophthalmoscopic examinations of normal eyes; the arteries being characterized by their small size and yellow-red color; the veins by their large size and dark, cinnabar-red color. Any

one not familiar with the actual appearances will easily recognize the distinction after a moment's examination of any good picture of a normal fundus. In this case, however, the vessels were all apparently of the same color; this color may be described as a light salmon. By color alone, then, the arteries could not be distinguished from the veins. This was the case when the light from the ophthalmoscope was thrown directly on the vessels; by rotating the handle of the mirror, so as to deflect the light, a dark axis could be seen in the large venous branches.

2. The apparently large diameter of the vessels. With regard to the exact mathematical increase in apparent diameter, a discussion at present would be out of place. The following general statement will suffice: the vessels appeared to have about twice the *normal* calibre.

This curious phenomenon may be explained satisfactorily in this way. When we examine the fundus of an eye we apparently see the full diameter of the vessels; accurately speaking this is not true. Could we examine the vessels under sufficiently favorable circumstances we should see a column of blood-corpuscles in the axis of the blood-stream, and surrounding this axial current a peripheral current composed of the plasma of the blood. Under ordinary circumstances this peripheral portion of the blood-current is invisible in ophthalmoscopic examinations; it can only be recognized by special search, so that what appears to be the diameter of the vessel is really the diameter of the axial current. Could we easily recognize the peripheral current the retinal vessels would seem to possess about double the calibre seen under ordinary circumstances.

In the case under consideration the serum of the blood was opaque, and therefore visible, by reason of the presence of fat in abnormal amount. Hence, the vessels appeared to possess double the usual calibre.

With regard to the general color of the fundus, the best idea of it may be obtained by taking Fig. 45 of Jaeger's ophthalmoscopic atlas to a well-lighted window, and allowing the sunlight to fall upon it. How much the lipæmia had to do with the general color of the fundus I cannot say; for the pigment of the fundus was sparse, and the patient, while not an albino, had very light, almost white, hair, light irides, etc. Under normal circumstances, of course, the fundus would have been of very light color. The examinations were generally made with an ordinary concave ophthalmoscopic mirror. The refraction of the eyes could not very accurately be determined, owing to the cloudy condition of the lens; it was, however, nearly emmetropic, perhaps a slight grade of hypermetropia existed. This condition, to which the name of *lipæmia retinalis* may be given, is therefore characterized by the light salmon color of the blood contained in the branches of retinal vein and artery, by the apparently large calibre of these vessels, and possibly by the very light color of the fundus oculi. These appearances being due to the presence of fat in abnormal amount in the serum of the blood.

This, probably, is the first case of the kind in which the fundus oculi has been copied and described, for after an extended examination of the literature of the subject I have failed to meet with a single reference to it.

While there can be no doubt of the existence of lipæmia and fat embolism in this case of diabetes, the share of the latter in producing the death of the patient is very uncertain, since, on account of his debilitated condition, the croupous pneumonia, though limited in extent, was quite sufficient to determine the fatal issue.

But the tendency to occlusion of the pulmonary capillaries may perhaps explain the peculiar depth and fulness of the respiration; characters which were observed on the date of admission, which slowly increased as the disease progressed, and which were greatly augmented by the onset of the pneumonia a short time before death.

The odor of acetone, described as resembling that of vinegar or stale beer, could not be detected either during life or at the autopsy, unless the vinous odor of the contents of the small intestine was of this nature.

ON THE RELATIONS OF NERVE AND MUSCLE.

By THOMAS W. POOLE, M.D.,

LINDSAY (ONT.), CANADA.

Why should it be taken for granted that the ordinary or extraordinary exercise of muscular contractile power is dependent upon a *stimulus* from the nervous system? Is there any *proof* of the alleged fact, and if so, where is it to be found? It will not do to accept such an opinion, because the response of the muscle to the will *seems* to justify it; nor yet because a few facts have been found, or perhaps, more properly, have been *construed*, to accord with it. On such a superficial view it might still be held that the sun rose and set, and we might be equally in error as to a great number of other natural phenomena, in regard to which appearances are notoriously deceptive.

The "stimulus" of electricity is often referred to as a counterpart of the "stimulus" of nerve-force, in its effects on the muscles. But where is the proof that electricity is a stimulus? Reasons why this agent is to be regarded as a paralyzer of nerve-function (while benefiting the muscle by exercising it), have already been given in the Medical Record (Nov. 1, 1879, p. 416), and need not be here discussed.

I am unable to point to any proof of the opinion generally accepted, that the relation of the nervous impulse to the muscle is that of a stimulus. On the other hand, there are a number of important facts opposed to it, and it seems apparent that all the relations of nerve and muscle may be much better explained on a very different theory and with very important practical results.

Among the facts opposed to the theory of the day (that muscular contraction is dependent upon a stimulus from the nervous system) the following may be briefly enumerated:

1. This theory fails to account for the actual contraction of the muscles in rigor mortis—a condition for which the myosin hypothesis fails to offer an explanation. (See recent article in Record, p. 451).

2. It fails to account for post-mortem muscular contraction, as when drowned persons are found clasped in each other's arms, or holding on to a cable or oar (Dr. Taylor's "Med. Juris."), or grasping straws, mud, or other objects; and for post-mortem muscular contraction in other cases of sudden death, examples of which will readily suggest themselves.

3. It fails to account for other remarkable post-mortem contractions in muscles and movements of limbs, numerous and well authenticated, particularly after death from cholera and yellow fever. (Dr. Carpenter, "Hum. Phys.," 7th Eng. ed., p. 763.)

4. The pulsations of the fœtal heart before the de-

velopment of the nervous system, or of nerves; the authenticated fact that muscular movements occur in anencephalic monsters, in whom the cerebro-spinal centres are wholly wanting; the occurrence of parturition as a post-mortem act, and its occurrence during life in the absence (from removal, or during paralyzing disease of the lower part of the spinal cord (Dr. Carpenter), are conditions not to be explained on the theory of the day.

5. The occurrence of muscular spasms, or "cramps," in the collapse of cholera, in the victims of poisoning by paralyzing agents, and in moribund patients from other causes, are facts antagonistic to this theory; for can it be believed that under such circumstances, the dying nerve-centres are generating and discharging an excess of nerve force wherewith to "stimulate" the muscles!

6. The "cramps" which so painfully knot in lumps the muscles of the limbs of the parturient woman, in the second stage of labor, owing to pressure on the pelvic nerves, must be regarded as due to an arrest, rather than to an increase, of nerve-force, and hence they supply a potent argument against this theory.

7. The spasmodic closure of the glottis from the poisonous inhalation of pure carbonic acid—a substance not shown to be an "irritant," and one certainly not conducive to the increased production of increased nerve-force, either directly or reflexly, is also a fact inimical to this theory.

8. The onset of spasms and convulsions when the motor nervous centres are deprived of blood, as in death by strangling, or from hemorrhage, or in the shambles, or on mere compression of the vertebral arteries, as in Sir A. Cooper's experiment, are facts adverse to this theory, because under these conditions nerve-force, instead of being unduly active to an extraordinary degree, must be regarded as undergoing a deprivation; for "it is a law in physiology that the functional activity of an organ is directly proportionate to the supply of arterial blood to the organ." (Dr. C. B. Radcliffe, "Lec. on Epilepsy," etc., p. 238.).

9. The counter-fact, that spasms and convulsions do not occur under circumstances favorable to the undue activity of the nervous centres (and consequently to increase of the alleged "stimulus" to muscle), namely, when "a determination of blood to the head" is artificially produced by ligature of the chief trunks leading to the extremities (Drs. Kussmaul and Tenner), or during a truly active state of the circulation (Dr. Radcliffe), is additionally adverse to that theory.

10. The theory of the day suffers materially from the fact that our best "antispasmodics" are "stimulants" Dr. Anstie), and that tremors, spasms (Dr. Radcliffe), and even tetanus (Dr. W. A. Hammond), are most successfully treated by "stimulants." If these states of muscular contraction depend on an excessive "stimulus" from the nerves to the muscles, the administration of drugs of this class, which are known to act specially on nervous tissue and to exalt its functional activity, would be not only injurious, but highly dangerous or fatal, instead of beneficial—a fact quite fatal to the theory.

11. The theory of the day necessitates the extraordinary and indefensible assumption that impure venous blood acts on the nervous centres in such a way as to prove more effectual for the generation of nerve-force than does pure arterial blood; as when Dr. J. Milner Fothergill asserts as follows:—"The more venous the blood, the greater the activity of this respiratory centre. The effect of venous blood is to augment the natural explosive decomposition of the nerve cells of the respiratory centre." ("Antag. of Ther. Agents," p. 80.) Accordingly, Dr. Fothergill almost makes it appear that having the vagi cut would be an advantage rather than otherwise, since thereby respiration is rendered "deeper and more prolonged, "fuller and more complete." So, also, defective "arterialization," we are told, results in "more perfect and extensive respiration" (p. 90). But, unfortunately, "rabbits, in which both vagi have been divided, commonly die before the end of the first day" (Dr. Burdon-Sanderson), a rather unfavorable consequence of the increased vigor thus given to their respiration.

The difficulty with the theory of the day here is, that as Dr. Burdon Sanderson shows, spasms and convulsions, not only of the respiratory muscles, but of the limbs and trunk, accompany the progress and mark the close of the asphyxiating process, and in the absence of other means for accounting for the extraordinary nervous "stimulus" required under the theory, to produce these contractions of the muscles, the presence of venous blood in the circulation is pressed into service and made to do duty as an assumed stimulant to the respiratory centre. But surely such an explanation is opposed to the plain teachings of physiology. Dr. Carpenter, while endorsing the idea that carbonic acid and venous blood act as a stimulus "to the pneumogastric nerves and to the respiratory centres," adds, "these parts are *unable to respond* to those impressions and to *originate motor impulses, unless duly supplied with oxygenated blood.*" ("Hum. Phys.," 7th ed., p. 327.) Dr. C. B. Radcliffe, F.R.S., denies that there is "any essential difference between the antecedents of convulsion from hemorrhage, and the antecedents of convulsion from suffocation. In the one case the vitality of the medulla oblongata fails as the blood streams away . . . . and in the other case the same results are brought about at a given moment by stoppage of the respiration and by the deficiency of arterial blood arising therefrom." ("Lec. on Epilepsy," etc., p. 116.) The "physiological law" of this author, quoted above, is also of special application here, and if it be true that "the functional activity of an organ is directly proportionate to the supply of arterial blood to the organ," then, in the face of these authorities and others which might be cited, it is difficult to see how the doctrine we are combating is to be maintained.

12. The theory of the day, when applied to nervous control over the muscular coats of the arteries, whereby their calibre is regulated, will be found completely out of joint with the facts of disease and drug action. For example, when the victim of cholera, or of aconite-poisoning is livid, cold, and pulseless, and the circulation is approaching a standstill, owing to undue contraction of the peripheral arterioles, these effects are attributable (on the theory) to *excitation* of the vaso-motor nerves, this being the assumed condition for vascular contraction. Indeed, Dr. Meryon, writing of the use of aconite in febrile states, says "it *stimulates* the dormant activity" of these nerves, and "by so doing diminishes the calibre of the arterioles." ("Rat. Therapeut.," p. 52). How absurd it is to assume an undue activity of any portion of the nervous system as the effect of a potent paralyzer, or amid profound prostration and collapse!

But more, an undoubted stimulant like brandy, which produces vascular dilatation and flushing, forsooth is a *paralyzer* of the vaso-motor nerves,—

for on the theory, arterial relaxation is the result of vaso-motor paralysis.

13. The theory now in vogue requires it to be believed that the arterial system is relaxed, or dilated when the nervous centres are destroyed, as by pithing, and it has been taught that such is really the case. The very opposite condition of arterial contraction and emptiness is here present, as the writer has proved by numerous experiments, and as Dr. Burdon-Sanderson's account of the experiment strongly confirms. (See MED. RECORD, Sept. 13, 1879, p. 248.) In other words, so far from the arterial muscle being dependent on nervous influence for its contraction, it contracts most effectually when the influence of the nervous centres is withdrawn, not only in death from pithing, but in death from general causes, for in death the arteries are invariably contracted and empty to the fullest extent possible (Dr. Carpenter).

14. On this theory it is impossible to account for the cure of congestive and inflammatory states—as pneumonia, for example—by the use of such drugs as aconite, veratrum viride, tartar emetic, morphia, and other "sedative" drugs, because (on that theory) the contraction of the dilated arterioles which it is desired to bring about, is to be sought for in *excitation* of the vaso-motor nerves, and these drugs are not excitors but paralyzers of nerve-function.

15. Dr. C. H. Bastian furnishes a remarkable illustration, not only of the absurdity of this theory, but also of the courage with which the theory is adhered to under unfavorable conditions. In his "Paralysis from Brain Disease," p. 27, he refers to a condition of the cerebral hemispheres in which the "nerve elements" suffer a functional "damage or derangement, which for a time hinders their proper life-changes, and so puts a temporary stop to their functional manifestations." That is, of course, a state of temporary paralysis. But associated with this condition, and depending on it, he finds the jerkings of chorea and the spasms of unilateral convulsions. Without pausing to reflect on this association of cerebral paralysis with muscular spasm, he rushes to the conclusion that "a large amount of nervous energy is liberated in the cerebral hemispheres"—just seen to be functionally paralyzed—"and a rapid down-rush occurs upon the motor ganglia." This sudden "down rush" or "discharge" of nerve-force, of course furnishes the necessary "stimulus" to throw the muscles into spasm or convulsion. And it is evoked from "nerve-elements" whose "proper life-changes" are "hindered," and whose "functional manifestations" have been stopped! And this is medical "science" as taught in the light of the theory of the day!

16. On this theory it is impossible to account for the results of the experiments of Dr. Brown-Séquard, in one of which it was shown that the lifting power of the muscles of a frog's hind leg was increased during some hours to nearly two and a half times, after division of its spinal cord, compared with its lifting power previously; and in another experiment the muscular irritability was increased (that is, the muscles were "seen to be more apt to enter into a state of contraction") after division of their principal motor nerve. As a result of these experiments, taken in connection with those of Sir A. Cooper and Drs. Kussmaul and Tenner, Dr. C. B. Radcliffe, F.R.S., arrives at the conclusion that "there is reason to believe that ordinary muscular contraction is associated with deprivation of nervous influence;" and even further, "that the power of muscular contraction is inversely related to the amount of nervous influence supplied to the muscles from the great nerve-centres." ("Lec. on Epilep.," etc., pp. 95, 100.) The conclusion thus arrived at found support from Dr. Anstie, editor of the London *Practitioner*, who, with these facts before him, wrote, "*the true action of vital force would appear to be rather that of restraining muscular contraction than of exciting it.*" ("Stim. and Narcot.," p. 70.) Here are facts from eminent experimentalists, and conclusions from thoughtful writers, in marked antagonism to the present theory of the relations of nerve and muscle.

17. Certain leading physiologists teach a doctrine highly unfavorable to the theory of the day. The "property of contractility" in muscle is said by Dr. Carpenter to be of two kinds—irritability and tonicity; the former denoting that form of contractility "tending to alternate with relaxation," of which the "most obvious and striking manifestations present themselves in the voluntary muscles and heart," and the latter—tonicity—distinguished by "a tendency to moderate and permanent [or passive] contraction." ("Human Phys.," 5th Amer. ed., p. 317.) Both of these forms of contractility are declared to be "an inherent property of the tissue itself" (p. 331).

Dr. Carpenter combats the doctrine "taught by some physiologists that muscles, though not dependent on nerves for their peculiar vital power [of contractility] are yet dependent upon them for the exercise of that power (Ib., p. 331). This is to assert that muscles are neither dependent upon the nervous system for their peculiar power of contractility, nor for their power to exercise it, which is a proposition antagonistic to the theory under discussion.

Drs. Todd and Bowman assert that "contractility is a property of the living muscular tissue as such;" and they "protest against the doctrine which assigns the spinal cord as the source of muscular irritability," and add: "It is contrary to all analogy to assign to one tissue the power of conferring vital properties on another." They say, "Surely, it is too much to suppose that a tissue like muscle, so complex in its chemical composition and so *exquisitely organized for the development of its proper force*, should be dependent on the nervous system, or a portion of it, for its contractile power." ("Phys. Anat.," Amer. ed., p. 303.)

These strong assertions of the Hallerian doctrine, that the property of contractility is inherent in the muscle itself, were the outcome of arguments intended to combat the views of Prof. Muller, Dr. M. Hall, Funcke, Eckhard, Jaccoud, and others, who maintained what many authors still maintain (Prof. Kuss), that the various so-called "excitants" or "stimuli" (such as a pinch, burn, corrosion of an acid, and electricity) which were found to induce muscular contraction, produce this effect not through their action on the muscle itself, but through the agency of the terminations of the motor nerves and their nuclei, which penetrate the muscular fibres. But in asserting so much, the physiologists just quoted, and their copyists, assert too much for the theory they elsewhere uphold. For if the property of contractility is thus amply provided for in the muscle, there is no need for it to be supplemented by the action of the nerve, especially since "it is contrary to all analogy for one tissue to confer vital properties on another."

The foregoing observations by no means exhaust the list of objections and difficulties which attach to the theory of the day on the relations of nerve and muscle. So far as the writer is aware, these objec-

tions have been fairly stated. If they are valid, that theory must eventually give way to one more in accordance with the facts, and to facilitate such an object, some suggestions in aid of a different theory will now be presented to the reader.

(*To be continued.*)

ON THE REMOVAL OF PARTICLES OF STEEL OR IRON FROM THE VITREOUS CHAMBER BY MEANS OF MAGNETS.

By EMIL GRUENING, M.D.,

SURGEON NEW YORK EYE AND EAR INFIRMARY, OPHTHALMIC SURGEON TO THE MT. SINAI AND THE GERMAN HOSPITALS.

THE passage of a foreign body into the vitreous chamber is justly regarded as one of the most serious accidents to the eye. Encapsulation or tolerance of the foreign substance is of very rare occurrence, and, in the vast majority of cases, not only is the injured organ lost, but its fellow threatened by sympathetic ophthalmia. Generally speaking, the indications in cases of recent injury, complicated with the lodgment of foreign particles, are, extraction of the body, and this failing, enucleation of the eyeball. Attempts at extraction by means of the instruments ordinarily employed (forceps, scoops, hooks, etc.) have so rarely been successful, that some surgeons disregard the first indication, and proceed at once to enucleate the injured eye. The most recent "Guide to diseases of the eye" (Nettleship) presents the status of the question as follows: "If it is certain that the foreign body has passed into the vitreous, whether through the lens or not, and whether by gunshot or not, it is scarcely ever worth while to attempt to save the eye."

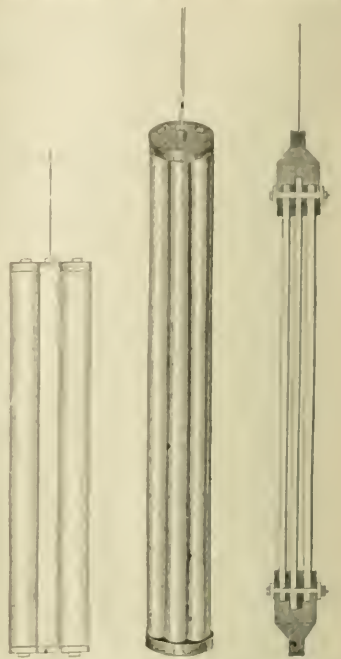
McKeown, of Belfast, was the first to introduce a magnet into the vitreous, for the purpose of extracting therefrom particles of steel or iron. (*British Medical Journal*, 1874.) Though he succeeded perfectly in removing the foreign body, and in saving the eye, yet his recommendation of the magnet as an extractor did not procure for it a favorable reception. In a subsequent publication (*Dublin Journal of Medical Sciences*, 1876) he reports two additional cases, the one terminating in atrophy of the globe, the other in suppuration. Manz, who made an abstract of the first of these cases (Virchow und Hirsch, *Jahresbericht*, 1875), remarked that although the object of the operation had been accomplished, the body extracted, and the eye but slightly injured, still the magnet employed could not be considered a trustworthy instrument.

The reason, then, why McKeown's method did not receive the favor which it merited, will be found in the circumstance that the particular magnetic instrument used by him was not suitable to the purpose. The magnet is described as being about eight inches long, one inch broad, one line thick, and tapering to a point at both extremities.

In 1879, Hirschberg (*Berliner Klinische Wochenschrift*, No. 46, 1879) successfully removed a piece of iron, 3 mm. long and 2 mm. broad, from the vitreous chamber, by means of an electro-magnet constructed for the purpose. The magnet consisted of a hollow cylinder of malleable iron, the two extremities of which were drawn out into long, fine points, like the branches of an iris forceps. The cylinder was surrounded by a coil which connected with a galvanic battery. Either of the poles of this electro-magnet easily sustained the weight of a small key, and attracted iron chips, 1 to 5 mm. long, at a distance of 1 to 4 mm.

Hirschberg's case excited much interest because it demonstrated clearly that a magnetic instrument, sufficiently delicate to be safely introduced into the eye, may still possess such powerful polarity as to extract particles of iron or steel from the vitreous without toil or trouble.

For some time past I have been experimenting with various forms of magnetic apparatus with a view of constructing an instrument that would concentrate the greatest possible magnetic polarity in the least possible dimensions. In my first trials I made use



of well magnetized solid steel cylinders, one extremity of which had been filed into a long, slender, needle-like point. The latter, however, never exhibited sufficient magnetic polarity for the purpose in question, and, owing to the hard temper of the steel used in making good magnets, showed itself as brittle as glass, and broke upon the slightest provocation. Discarding the steel point, I had a long and delicate piece of malleable iron fitted into one extremity of the magnet. This slight alteration produced a more satisfactory instrument. Not only did the induced magnetism of the iron prove itself (ceteris paribus) more powerful than that of the steel point, but the fragility of the previously employed instrument had been removed also. In order to add still more to the magnetic polarity of the point, I joined several magnets into a bundle, thus making a powerful magnetic magazine. The principle of constructing such a magazine is old, the application of the apparatus for

the removal of fragments of iron or steel from the vitreous chamber, new. As shown in the cuts the two extremities of a number of magnetized steel rods placed parallel to, and at a little distance from each other, are fitted into iron caps, one of which is provided with a delicate point of malleable iron, 32 mm. long, 1 mm. wide, and 0.3 mm. thick. This point is powerfully magnetic, sustaining, with ease, a weight of 15 grammes. Chips of iron weighing from 1 to 50 centigrammes, when placed into the vitreous of recently enucleated animal eyes, are attracted toward the point at a distance of 1 to 5 mm., and withdrawn with the greatest facility. The instrument thus perfected *equals* Hirschberg's electro-magnet in efficiency, but *surpasses* it in simplicity of construction, convenience of form, and lowness of price.

The figures represent three different forms of the instrument made for me by the Galvano-Faradic Manufacturing Company, No. 288 4th Avenue, New York.

Progress of Medical Science.

Amyloid Degeneration.—According to recent experiments by Mr. Budd, lardacein, or waxy substance, presents three distinct peculiarities, and the most peculiar of them all is its faculty for wholly resisting the action of ordinary digestive fluids. This, indeed, is its most specific characteristic. It exhibits a mahogany hue when treated with iodine, and is colored dark blue by the joint action of iodine and sulphuric acid; but the latter peculiarities (seeing that they are possessed by other substances also), are only specific in degree. Dr. Dickinson's theory explains only the brown coloration with iodine. He supposes that waxy substance is dealkalized fibrin (acid albumen, in fact), prolonged suppuration withdrawing large quantities of alkali from the blood. Mr. Budd found in the dystropodextrin of Seegen, a substance whose deterioration might easily lead to a morbid infiltration, answering to all the characteristics of lardacein. This substance is a dextrin, and is produced in large quantities wherever the amylolytic metamorphosis of glycogen takes place. Dystropodextrin is first set free in the liver; that organ is, perhaps, the commonest seat of waxy degeneration. The author thinks it quite probable that waxy deposits may be a mixture of perverted dextrins—dystropodextrin, however, predominating and lending to the compound its stubborn characteristics. Lardacein is stained dark brown by iodine, but upon the addition of an alkali the color vanishes. It may, however, be restored by the superaddition of acid. Dr. Dickinson argued that the brown coloration was due to the acidity of waxy substance, and inferred that this was neutralized by the alkali, and again renewed by the acid. Mr. Budd's conjoined chemical and microscopical investigations prove that the changes are due to the action of alkali upon iodine. Hence Dr. Dickinson's theory has been founded upon a misinterpretation of a series of simple chemical combinations. The formula which has been hitherto supposed to represent the composition of the infiltration is an erroneous one, representing a mixture of a morbid substance with original cell matter. Dystropodextrin, normally present in the blood, agrees with the infiltration in its most essential characteristic, viz., its total disregard for all fermentative influence.—*The Lancet*, Feb. 28 and March 27, 1880.

"Double-Staining" in Microscopical Investigation.—The employment of staining agents in the preparation of animal tissues for microscopical examination has been one of the most useful advances in this branch of science. Histologists were not long in finding out what might well have been predicted, that different tissues with varying chemical reactions are differently acted upon by various staining fluids, and this fact has for some time been used to assist them in the differentiation of tissues. The number of staining agents has of late years become considerably increased, and a good deal of attention has been expended upon perfecting their use. At a recent meeting of the Royal Microscopical Society, Dr. Gibbes explained the processes by which he is able to stain a single section in more than one color, getting each tissue in the section stained a different tint. Dr. Gibbes is able to get treble and even quadruple staining. Thus, among other specimens he showed transverse sections of the rat's tail, in which the bone, cartilage, nerves, tendon cells, muscle, and blood-vessels, which had different chemical reactions, were each stained a distinctly different color. For double-staining, successive immersion in solutions of picro-carmine and logwood may be used; or better, immersion first in a spirituous solution of roseine or aniline violet, and then in an aqueous solution of aniline blue or iodine green. To stain with more than two colors is much more difficult; the best results are obtained by first staining in chloride of gold or picro-carmine, and then in the spirituous and aqueous solutions of anilines. The value of these results will be apparent to all engaged in elaborate histological investigations.—*The Lancet*, March 20, 1880.

Acute Nephritis in Typhoid Fever.—At a recent meeting of the London Clinical Society, a case of this kind was reported. A porter, aged 21, was admitted into the Middlesex Hospital, under Dr. Greenhow's care, on Nov. 25, 1879, the fifth day of a fever, which set in with considerable severity, the second day of the attack being marked by vomiting, cough, and slight sore throat; and in the night he began to have painful micturition, and noticed that his urine was almost black in color. On admission, pulse 108; temperature 103.2°; urine, sp. gr. 1012, of a deep red color, from admixture with blood containing albumen—one-half, numerous blood-globules, blood and epithelial casts. He was very prostrate and suffered from muscular pains. There was impaired resonance with bronchial breathing and scanty crepitation at the apex of the right lung, but there were no râles elsewhere. The cardiac second sound was reduplicate. Abdomen was tympanitic, and there was tenderness and gurgling in the right iliac fossa. The liver and spleen were not enlarged. There were neither diarrhœa nor rose-spots. Cold sponging was ordered and fluid diet. At 9 P.M., pulse 126; temperature 104 6°. The illness ran a rapid course, prostration increased, the pulse-rate ranged between 100 and 130; temperature 97.6° to 104.8°. Restlessness and delirium passing toward the close into somnolence with occasional subsultus in arms and legs, were observed. Tongue became dry and fissured. Urine continued to be blood-stained, but the amount of blood and albumen diminished. The abdominal distention persisted, and characteristic diarrhœa appeared on the 27th, continuing until death, which took place on Dec. 8th, the thirteenth day of his illness. The autopsy revealed mitral thickening and enlargement of the

heart and marked pulmonary hypostasis. Two or three sloughing ulcers occurred at the lower end of the ileum, and one in the healing stage. Peyer's glands and the solitary follicles being elsewhere swollen. Liver and spleen greatly enlarged and softened. Kidneys, weighing twelve and fourteen ounces respectively, were intensely gorged, their secreting tubules were filled with swollen granular epithelium, and between the tubules there was small-celled infiltration. Dr Greenhow remarked that he had not met with a similar instance. Albuminuria, when it occurs, is usually a late event in typhoid fever, according to Liebermeister, not until the fever has reached its height; and Murchison says it rarely appears sooner than the third week, and is due either to congestion or to parenchymatous degeneration, not as due to acute nephritis. Dr. Murchison also says that when copious hæmaturia occurs it is generally associated with other hemorrhages. The points of chief interest were the concurrence of typhoid fever with such intense nephritis, the entire absence of dropsy, and the severe and rapid course of the disease.—*The Lancet*, March 20, 1880.

Melanotic Epithelioma of Penis. Dr. Gould reports a case of this kind where amputation, followed by recovery, was performed. A laborer, admitted to Westminster Hospital, had noticed nothing wrong with his penis until about five years before, when a small black spot appeared on the glans penis. It gradually increased in size; other similar growths had sprung up around the first. For a few months past he had experienced difficulty and pain in micturition, but with this exception, had been free from pain. No hemorrhage. No history of cancer or tumor in the family. On admission, the penis presented four or five raised black nodules the size of peas, ranged along the corona, while farther forward on the dorsum of the glans was a much larger black fungating mass, which quite obscured the glans. Two or three smaller tumors of the same color were seen higher up the penis, not projecting from the surface. No enlargement of inguinal or lumbar glands; no evidence of any growth in the lungs. Thickly scattered over the man's back were a number of pendulous warts and little molluscous tumors, nearly all of which were deeply pigmented, if not quite black. These, the man stated, had existed all his life. Amputation by the wire écraseur; rapid recovery. The growth, as determined by microscopical investigation, proved to be a melanoid epithelioma. The superficial epithelium could be traced growing down and becoming pigmented and continuous with the tissue of the deeper parts of the tumor. A peculiarity of the tumor was its early benign character. It had existed five years without any sign of lymphatic injection or secondary growth.

Clinical Hemometry. — From Drs. Baxter and Willcock's series of interesting papers on this subject, we extract the following: It has been supposed by many that the richness in hæmoglobin of the blood was always proportionate to its richness in corpuscles. The truth seems to be that although in health the two usually vary together, in disease the normal ratio between them may altogether cease to be maintained. Duncan first saw the possibility of anæmia being developed in one of several modes—by a diminution of the corpuscles, by an impoverishment of the individual corpuscle, or by a combination of the two. The first of these modes is called a *hypocytosis*, the second a *hypochrosis*. Hence, the obvious need of chromometry—the direct valuation of the hæmoglobin—to supplement the results of numeration. The normal average of corpuscles per cubic millimetre is usually put at 5,000,000, in conformity with Welcker's estimate. The authors are disposed to put it nearer 6,000,000. There is a striking absence of agreement on this point among authors, which ought, in large measure, to be attributed to instrumental error. Apart from this, it must be remembered that the proportion of corpuscles per cubic millimetre of blood is known to be affected by a great variety of conditions within the limits of health. The influence of age, sex, season, diet, purging, sweating, etc., all make themselves felt. Hence, clinical inferences should be drawn only in gross deviations from the normal standard, such as exceed the possible limits both of physiological variation and of instrumental error. The observations made by the authors are grouped under three heads: first, those made in acute febrile diseases; secondly, in chronic diseases, thirdly, in those pathological conditions in which the blood is either the primary seat of the morbid process, or, at any rate, the theatre of its most conspicuous manifestations. The general conclusions drawn from the various observations comprised in the first group, were of an unexpectedly negative kind. Enteric fever, even when it immediately threatened life, did not appear to affect either the number or the quality of the red corpuscles to any marked extent. In marked contrast to the immunity of the red corpuscles in all the pyrexial disorders, is their liability to destruction in malarial fever. In the malignant form of paludal fever, the rapidity of corpuscular disintegration is proportionate to the previous good health of the patient. On recovery from an attack of this kind, the restoration of the corpuscles is usually pretty rapid. The destruction of the red corpuscles is not dependent on the pyrexia as such, though it probably stands in close relation to the melanæmia, which is so frequent a consequence of the endemic fevers of marshy districts. The conclusions with regard to malaria are borrowed from Kelsch (*Arch. de Phys.*, vol. ii., 1875), the authors not having had an opportunity to substantiate them. In diabetes mellitus, an excess of red corpuscles, coupled with a low individual value, was observed. In internal cancer, the authors believe that the most extreme cachexia need not of necessity entail any marked impoverishment of the blood—at any rate, as regards its most important constituent. Decided diminution in the amount of hæmoglobin was found in chronic renal disease. The mere existence of valvular insufficiency did not necessarily entail impoverishment of the blood. In anæmia from hemorrhage, hypochrosis, as well as hypocytosis, occurred. In the order of recovery, the latter apparently took precedence of the former. As regards chlorosis, the statement is made that while hypocytosis and hypochrosis coexist, the latter is always in excess of the former, and that under the influence of iron the increase in the number of corpuscles usually precedes the increase in their individual value, though both factors are affected by the remedy. It is interesting to note that the patient's symptoms are always relieved when the number of corpuscles attains its normal level, even though their individual value show no corresponding improvement.—*The Lancet*, March 6, 13, 20, 1880.

Professor F. T. Miles has resigned the chair of anatomy in the University of Maryland, and has accepted the chair of physiology in the same school.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE PHARMACOPŒIA CONVENTION.

THE convention that is to meet in Washington on the fifth inst., to provide for a revision of the United States Pharmacopœia will attract, from all parts of the country, gentlemen interested in the matter.

The delegates, judging from the names already published, are particularly well qualified for the task before them; in fact the convention will be pre-eminently an assembly of experts in materia medica and pharmacy. While some possess special qualifications and information in materia medica, embracing, as it does, the properties and actions of drugs, and others are experts in their pharmaceutical manipulation, still others are reasonably familiar with both these branches. There is no lack then, of requisite talent in the convention to enable it to properly care for the interests committed to its charge. These interests are by no means trivial, and are of special importance to the medical profession. A good pharmacopœia is the groundwork of successful therapeutics, as much as good building materials are the first requisites for the construction of a safe and substantial edifice. No matter how learned the physician, no matter how much knowledge and care he brings to the management of a case of disease, his success will be but indifferent if he have not ready access to the drugs best suited to his purpose, and preparations of them that best display their medicinal properties. These are the ends that it should be the object of the convention to secure. It may be safely said that our present Pharmacopœia is far behind the requirements of the day, and stands in need of very general revision and improvement. At present it is a work rarely owned and still less rarely consulted by the physician. It should be one that he would find practically useful, if not indispensable.

The need of pharmacopœial revision was first prominently urged on the profession a few years ago by a gentleman eminently qualified to give sound advice on the subject, and yet when the matter was considered in the American Medical Association, private interests came to the front and succeeded in defeating what appeared to be an important step in the right direction. The action, or rather lack of action taken by the association necessitates a continuance of the old plan of pharmacopœial revision. This plan, properly carried out, is not a bad one, as it brings together the representatives of the medical and pharmaceutical professions, both of which are interested in the scheme, each, however, from a different standpoint. It is to this body then that we are to look for action that will result in giving us a pharmacopœia worthy of the country, and one that every physician will feel it to his interest to possess. The mutual interdependence of the medical and pharmaceutical professions should lead both to seek to promote each other's advantage, knowing that the success of the one aids the advancement of the other. The interests involved in the present matter are too important and grave to be lightly considered, or to be decided in any other way than shall seem most conducive to the public good.

The chief work of the convention will be, we suppose, the determination of the principles that shall govern the revision, and the appointment of a committee to carry them out.

The constitution of this committee is important. It should comprise about an equal number of physicians and pharmacists, who should be selected on the sole ground of fitness for the work to be required of them, and its members should possess the requisite energy and willingness to do their entire duty, and not, like the last committee, shirk a portion of its assigned work without adequate excuse.

THE DISCUSSION ON THE PROBLEMS OF INSANITY.

THE obscurity of any question is generally a very good measure of the extent to which it is discussed. This is a fact which has been well illustrated recently by the prolonged debates upon the problems of insanity which have occupied three meetings of the Medico-Legal Society. The paper by Dr. Beard on the above subject, was a more than ordinary piece of work, as was shown by the interest it excited. The questions in the paper were treated with the acuteness and philosophic spirit which generally characterize the writings of its author. If he displayed at times more epigrammatic smartness than scientific accuracy, the paper was, at least, made no less interesting by the fact.

The discussion which followed it was, on the whole, an unsatisfactory one. It cannot be said that it settled anything, except the Gosling case. Mr. Abraham Gosling was decided to be insane, and he will either be dead, we are told, in about three years, or there will be one diploma less in this city. He is a brave man who dares take another view than this now. But, in addition to a fiat upon this matter,

the Society by its discussion, brought out a good many facts of interest regarding the various problems in the essay read before it.

We have not space to go over all the points taken up by the Society, but there are two or three which have an especial interest, and which may be worth referring to briefly.

To define insanity has been said to be, on the one hand, absolutely necessary, and, on the other, absolutely impossible. The necessity is a medico-legal one, and is felt every time that a case of insanity is brought into court. The impossibility is alleged to be due to the fact that insanity is an elusive and variable quantity. Dr Beard seemed to feel the necessity of a definition more strongly than its impossibility, and his solution proposed the following constant to the variable: "Insanity is a disease of the brain in which mental co-ordination is seriously impaired."

The criticisms which were showered upon this definition may be best indicated by an amended definition which was finally offered and which runs something like this: "Insanity is a manifestation of a disease of the brain in which, while consciousness is retained, mental co-ordination or responsibility is seriously impaired, perverted, or extinguished." While some of these amendments may be technically essential, they are none of them so important as to change the general character of the definition, or take from the author whatever credit it may give him. We believe it will be found, however, that the real defect of the definition is that it does not define at all, but simply puts an equally unknown term in the predicate. Insanity is the expression of mental inco-ordination. But what is co-ordination or inco-ordination? To this Dr. Beard says he cannot answer, nor, he added, could he do so, if all the kingdoms, and principalities, and powers of this earth were offered him as an incentive. Still, for all that, it was urged, we know what co-ordination is, although we cannot define it. But even if this is admitted, we can say very much the same about insanity. Most persons can tell it, although none can define it.

A definition must indicate the boundary lines of its subject. We do not define a thing when we predicate an undefinable synonym of it. We shall not deny that the definition under discussion may, when modified, prove a good working one in spite of the defects suggested. There is a specious clearness and simplicity about it, and before a court, the nebulousness of the idea which "mental inco-ordination" presents may be considered as due to a lack of scientific training on the part of the court. A medical expert is expected to define insanity; but when it comes to such a word as inco-ordination he may well assert that this is a thing of general lexicographical interest upon which he should not be called to show expertness.

Of the other subjects discussed there was one that calls loud to being satisfactorily settled. This was the question as to whether insanity is increasing in greater proportion than the population. The evidence on the whole was to the effect that such an increase is taking place in most civilized countries. Whatever may be the fact of the matter as regards insanity generally, there is no doubt of the alarming increase in our country, and our calculations and provisions must be based upon this fact.

The statement of Dr Beard that this increase is due in the main to the friction of modern civilization was not successfully confuted. But the statement is too general to be of much practical value. The specific charge, however, that woman's intellectual elevation is a potent cause of insanity as well as of race deterioration, will be hard to prove, and will meet no small opposition from a certain portion of the ladies.

But we have not space for enlarging upon this point now. Enough has been said to show the very suggestive character of the paper. Its influence will not be likely to end with the series of discussions which it evoked.

THE UNDERTAKER AS AN ARTIST.

It has been reserved for the present century to attempt an elevation of the undertaker to the position of an artist. Such an attempt may appear novel, but it is quite a legitimate one, and only indicates a natural awakening to the wider demands of our present civilization. The evolution of society from the homogeneous and simple to the heterogeneous and complex should not, and does not, exclude the undertaker in its readjustments. It may have been noticed that when it is proposed to discuss a subject philosophically, a popular custom is to announce that this particular thing is the barometer of civilization. It has in this way been discovered that civilization has a great many barometers. But we venture to say that none will give greater satisfaction than the undertaker, whom we now place on the list. The function and duties of this person have, as a rule, been simple or complex in accordance with the character of the society in which he lives. At present, when fashion coquets with death, and rules mortuary observances as strictly as the style of bonnets, the undertaker has to be a very live man to keep up with his work. It requires no inconsiderable skill to have everything done with decency and in good form. We are rather of the opinion, therefore, that the undertaker has not been credited with all that is due him. He is apt to be looked upon at present in a too lugubrious light—as one of the sad necessities that accompany extinction, or as answering, to a certain extent, the apostolic query: Where is the sting of death? He has never, by any accident, been looked at as an artist; and yet such, without doubt, is to be

the position of the undertaker of the future. This we have, to a large extent, on the authority of the State Board of Health of New Jersey, for it is in sanitary matters that his work is to expand to the symmetry and coherence of an art. The undertaker ought to know, and will know, when an artist, all about the facts of contagion, and the best methods of disinfection; he will be able to apply the tests of death; he will know how to prepare the body so that it will be inoffensive and incapable of spreading disease. He will understand the nature of cemetery soils, and will be able to tell how long a time will be required for the body's decomposition and disappearance. He will prepare and encase the body also, so that, according as may be desired, it will remain unchanged in its tomb, or will be rapidly absorbed by the surrounding soil. In fact, in addition to superintending the details of and preparations for an artistic interment, he will do everything that science requires to make the passage of the body from the death-bed to the tomb harmless to the living, and as little painful to the feelings of the bereaved or the æsthetic sense of the world in general, as possible.

It will be seen that in this new field there is now much for the undertaker to accomplish, both for himself and the community, if he will only learn. Undertakers are licensed in some States; as this tends to secure a more responsible body of men, it ought to be more generally the rule. In New Jersey, we learn, considerable interest has been shown by undertakers already, regarding the sanitary questions in which it is proposed they shall be instructed. A diffusion of this interest ought to take place, as it would undoubtedly tend to the security and health of the community.

THE REGISTRATION OF INFECTIOUS DISEASES IN ENGLAND.

In a report to the Parliamentary Bills Committee by its chairman, Mr. Ernest Hart, the progress of legislation upon the subject of registering infectious diseases is very elaborately given. The sanitary legislation of England is, on the whole, very perfect, the lack of a compulsory system of registering infectious diseases being perhaps its most prominent defect. Attempts have been made for several years to remedy this, and with some degree of success. The matter has been taken up by the British Medical Association, and as the influence of that body upon Parliament is daily growing stronger, it is to be expected that a thorough system of registration will before long be secured. There has been considerable opposition to the proposed legislation heretofore, because the idea of compelling a householder, or a medical man, to report upon the condition of a private family seemed something like the invasion of personal liberty and natural rights. This idea is, however, giving way before the evident advantage and reasonableness of having the existence of infectious disease at once made known and its dangers provided for. Already the system has been introduced into fourteen cities and towns, and its workings in these places have been eminently satisfactory. A number of bills to extend the law to other places were before Parliament at its recent session.

The English plan of registration differs from our own, as has been before stated in these columns, in its compelling the physician to give a certificate of the disease to the householder, who is then obliged to forward it to the proper health officer. The physician is paid from a shilling to a half-crown for his work.

The compulsory notification of infectious diseases almost always forms part of the sanitary regulations in our country, so far as such regulations exist at all. There are, however, some features in the English law which we might profitably copy. In the report before us a model clause is given for the benefit of communities desiring to secure legislation upon this subject. An examination of this model might be of much service to those interested in this particular question.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 1, 1880.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

A NEW TONSILLOTOME.

DR. FRANK H. HAMILTON exhibited a new tonsillotome, with preliminary remarks as follows upon hypertrophy of the tonsils, and supplementary to Dr. Leffert's excellent paper read before the Academy: From personal experience he regarded chronic hypertrophy of the tonsils as one of the manifestations of the strumous diathesis. He had scarcely seen it occur except in children who presented the general appearance seen in the condition called struma. He had noticed often that it was hereditary, and had known it to pass through several successive generations. He was not prepared to say that it generally had associated with it enlargement of the lymphatic glands in the neck. His impression was otherwise. Still, as he believed, that fact did not militate against the view that the condition belonged to the strumous diathesis. Again, the tonsils had a period of growth and decline. His impression was that the tonsils were seldom seen in early infants; they usually began to be seen at two, three, four, or five years of age, and reached the climax of growth from the tenth to the twelfth year, the period during which application was made to the surgeon most frequently for relief, and it was rare to see hypertrophy of the tonsils after the twentieth year of age, at all events, anything that demanded extirpation. The question of the removal of the tonsils was not in dispute, but perhaps the circumstances under which their removal was proper was yet at issue. He had been in the habit of saying that, inasmuch as they had prog-

ron and deafness, unless they occasioned serious inconvenience, there was no good reason why they should be removed. If, however they were the seat of frequent attacks of acute inflammation, or if they interfered seriously with deglutition or respiration when the child was lying down, or if they were subject to acute attacks of neuralgia, or if they interfered with hearing, or in any way interfered with the Eustachian tube, there was sufficient reason for their removal. With reference to hearing, it was well to consider whether the impairment was due to pressure produced by the enlarged tonsils or to continuous inflammation producing actual thickening of the mucous membrane of the tube and so preventing its action. He had noticed that removal of the tonsils did not at once improve hearing; but that a period of one or two years must elapse before the benefit was experienced. Removal of the tonsils when actually inflamed was not to be practised unless the patient was suffocating. Nor would he operate upon a person who was known to have a strong hemorrhagic diathesis, because of the liability to profuse hemorrhage. Dr. Hamilton then referred to three cases in which the hemorrhage was so considerable that it became alarming, all occurring in patients fourteen or fifteen years of age.

He then spoke of the different methods by which the tonsils have been extirpated, such as by the use of caustics, the ligature, and finally excision. He then described Velpeau's, Physic's, Warren's, Cox's, and Freman's tonsillotomes, and pointed out their defects. The instrument which he had employed, ever since beginning the practice of medicine and surgery, was a modification of Owen's tonsillotome, which he always suspected was really an instrument devised by that eminent surgeon, the late Dr. Alden March, of Albany.

The tonsil to be excised almost always hung a little downward. He had found it convenient to introduce the instrument into the mouth flatwise, with the face upward, then, after carrying it well back, turn it up edgeways, and in that manner the mouth was held open. He then passed his finger in, felt that the tonsil was properly engaged in the opening in the instrument, and when ready the guillotine was sent through the gland from *before backward*.

The President asked the indulgence of the Academy, while he referred to certain points in connection with chronic hypertrophy of the tonsils and its treatment. Inasmuch as no allusion had been made to one whose experience and extraordinary dexterity in manipulation had, perhaps, never been equalled, whatever may have been thought of his pathological views or practice, he would refer to the method of operating adopted by Dr Horace Green, because he thought that all that could be should be known relative to the operation for removal of the tonsils.

Dr. Green, after trying various methods, finally settled upon the following, which had been partially alluded to by Dr. Hamilton. His method was to seize the tonsil with a single hook, bring it forward, and then, with a bistoury, cut away the exact amount he wished to remove. He always operated upon the left tonsil first, standing in front of the patient, and cut from above downward. When the right tonsil was removed, he stood behind the patient, seized the gland, and cut from below upward. Scarcely ten seconds were required to perform the operation.

One fact which Dr. Green had noticed—and the President had made the same observation—was that the operation for removal of the right tonsil was the more painful of the two, and that there was more hemorrhage when the cut was made from below upward, than when made from above downward. Still, the removal of either tonsil was easily accomplished.

The President also believed the experience of all was, that in former times tonsils were often removed unnecessarily. He also believed that the tonsil had a period of increase, acme, and decrease. He had seen tonsils become very large, and in the course of a few years, the hypertrophy had entirely disappeared without special treatment. Furthermore, there were some objections to the operation for removal on account of the possible effect produced upon the voice. He thought removal was indicated not so much when the tonsils were simply hypertrophied as when there was disease of their interior structure, necessitating excision in order to effect a cure.

Dr. A. C. Post remarked that he had been in the habit of using the instrument made by Mr Freman, and had found that with it the tonsils could be removed with very great celerity, with ease to the surgeon, and but little discomfort to the patient.

NOTES OF FOUR CASES OF HIP-JOINT DISEASE IN THE THIRD STAGE.

Dr. A. B. Judson reported cases as indicated above, and presented three patients with the view to illustrate what could be accomplished by mechanical treatment of hip-joint disease. All were cases in which there was unquestionably complete destruction of the joint, and exaggerated evidence of general and local disturbance, and he thought that the results were sufficiently favorable to compare with the value claimed for exsection.

Case I.—A boy, seven years of age, had been diseased four years, when a long splint was adjusted without allowing the heel to reach the ground, and worn for one year. The constitutional disturbance was very severe, and cod liver-oil, ferruginous tonics, etc., were administered, and nutrition sustained to the highest possible degree. From the subsidence of the local disturbance, at the end of a year, it became evident that fixation was no longer required, and the patient was furnished with another instrument which he wore for three years, and walked with crutches.

Result.—An active, healthy schoolboy. Stiffening of the joint, but fast walking was not prevented. Motion at the joint limited to slight flexion, abduction, and adduction. Shortening half an inch distributed between the hip and knee. Limb smaller than its fellow. No evidence that the growth of the femur had been interrupted. Position of the femur that of slight flexion, but no abduction or adduction.

Case II.—Boy six years of age. Been under treatment eighteen months. Had worn short splint, been treated by means of weight and pulley, etc. Nine sinuses formed in the thigh. The long hip-splint was worn until it became evident that fixation was unnecessary.

Final result.—Marked limp in the gait, due partly to stiffness of the joint, and partly to shortening of the limb. No abduction or adduction. Motion in the joint limited to slight flexion and extension. Shortening one inch, distributed between the hip and knee. Limb somewhat smaller than its fellow, but its function was not materially affected. Spine free from curvatures. Slight discharge from one sinus.

Case III.—A girl. Defect in gait scarcely observable. What there was, was due to stiffness of the joint, and not to shortening of the limb. The position of the limb was good, with slight flexion, and no ab-

duction or adduction. Shortening one-fourth of an inch, part of which was in the tibia. Bones of the entire limb smaller than those in its fellow. No evidence that the development at the epiphyseal junction had been interrupted.

Case IV.—Boy nine years old. The case terminated fatally.

Out of sixty cases, chiefly in private practice, that had been under his observation, a number ceased to be treated, a few terminated fatally, and a number recovered. The four cases reported were in the third stage when he began treatment, and the results obtained he regarded as a fair average of what could be secured by mechanical treatment of a joint which might undergo destruction by inflammation that spared none of the tissues. The morbid action was not malignant. The open question was whether or not it was strumous. In two of the cases there was phthisis in the family. The principles of treatment were fixation of the joint for a time, protecting it from concussion and accident, general and hygienic treatment, such local treatment as might be indicated during the progress of the case, and trusting to nature to effect a cure. The results compared favorably with those obtained by exsection.

Dr. C. Fayette Taylor presented four patients, and commented briefly upon their history and the history of others whom he expected to be present.

Case I.—Mr. B——, a young man, came under treatment in 1871, and was discharged at the end of a year and a half. He had the history of hip-joint disease occurring four years previously, and was supposed to have been cured. He had two or three discharging abscesses, and one opened after treatment had been begun. His recovery had been remarkably rapid under the influence of mechanical treatment, and his cure was complete. In 1871, he was greatly emaciated, and his thigh was flexed at about a right angle with the trunk. He had perfect motion in the joint. As Dr. Taylor's memory served him, there was no shortening. He had found only a few cases in which there was not more or less difference in the length of the limbs, but if there was an inch shortening with perfect motion in the joint, it would not be observable. The case pointed to the curability of hip-joint disease with mechanical treatment after suppuration had been established.

Case II.—A boy came under treatment in 1876. He was still wearing what Dr. Taylor called the median splint, which was used particularly in cases in which a tendency to adduction was very great. The point of purchase in the median splint, a modification of Davis's splint, was against the pelvis upon the opposite side. The boy was recovering with anchylosis. There was considerable flexion.

Case III.—A lad came under observation in 1877, in the third stage of hip-joint disease. A number of sinuses discharged at the time treatment was begun, but all had closed. He had a fair amount of motion, and was still wearing the supporting apparatus. Dr. Taylor regarded it as important to protect the joint for considerable time after extension became unnecessary, and the median splint, or instrument, which the boy was wearing, was constructed for that purpose.

Case IV.—A boy, seven or eight years old, was, last summer, a fit subject for excision of the hip-joint, and the case bore directly upon the question, as to whether or not a patient could be restored to fair health after being in a condition which would have justified excision. His general condition had so much improved that he was looking very well. When treatment was begun, his legs were strongly adducted, and pus was discharging from several sinuses. All the sinuses except one had closed. He was wearing the long counter-extension splint on both legs, and the adjustment at the upper part was so made as to leave openings through which the discharge could pass without hindrance. His legs had been brought down parallel with each other, and the boy walked with crutches.

The cases were presented as average illustrations of what could be accomplished by mechanical treatment.

Dr. C. T. Poore thought that calling all cases of suppuration the third stage of hip-joint disease was an error, for suppuration might occur outside of the joint. Observers should, therefore, be more definite when speaking of the symptoms of the third stage.

With reference to excision, he was unable to boast of any very good results. But from his cases he thought several inferences might be drawn. He had excised the hip-joint thirteen times. *Four* of the patients were cured, and the remainder died. *One* died from phthisis, *four* from amyloid degeneration, *one* from cardiac thrombosis, *one* from tubercular meningitis, and *one* from exhaustion.

He thought the deaths from amyloid degeneration were due to constitutional causes. He had seen a patient with only a moderate amount of disease in the hip-joint, which soon showed evidences of amyloid degeneration of internal organs, and at autopsy, amyloid degeneration of the liver and kidneys was found. He had seen other cases which had had a duration of two or more years with profuse suppuration, and the patient had died from pure exhaustion, and at autopsy no amyloid degeneration whatever was found. Why the degeneration appeared early in one case, and did not appear at all in another, even after prolonged suppuration, he could not say, unless it was a constitutional condition. In all his cases of amyloid degeneration, there was a bad family history; and, in looking up cases of death from hip disease under treatment, he had been able to find in connection with amyloid degeneration a bad family history with regard to predisposition to tubercular disease.

He had collected forty-five cases of death from hip-joint disease not connected with excision. Of those, seven had tuberculosis, eight tubercular meningitis, sixteen amyloid degeneration, four were poor hospital cases, and ten died from exhaustion. These statistics showed that the danger of death in hip-joint disease was from constitutional disease, of course including the sixteen cases of amyloid degeneration as due to constitutional causes.

The treatment resolved itself into treating the predisposing causes. The cause being constitutional, the line of treatment to be followed in certain cases was readily determined.

With regard to family history, he thought that, in cases in which there was a bad history in that respect, the surgeon should guard as much as possible against profuse suppuration. With regard to results, what was desired was knowledge concerning those cases that passed from under notice. He believed that Mr. Holmes's remarks were true—namely, that one-third of the patients died, one-third were relieved somewhat, and one-third were cured. He thought all statistics pointed toward that conclusion.

With regard to excision, it must be remembered that in a vast majority of cases the patient had passed through the hands of gentlemen who did not believe

in the operation, and finally they reach a surgeon who performs it as a last resort. He believed that if good results were to be obtained from excision the operation must be performed early, and that then the patients would do better than to submit to long-continued mechanical treatment. It had been urged by those opposed to excision that the patients died after the operation; but he claimed that they died, not from the operation, but despite excision and from intercurrent disease, due to too late surgical interference.

He wished that there was a society where the worst cases could be exhibited. Only a certain class of good cases were usually presented, but what surgeons wished to see was the worst cases.

He believed that, when the joint had become disorganized, better results could be obtained by excision than by mechanical treatment, but as good results as were wished had not been yet obtained. Of late he had given up excision, and tried sending his patients where they could get a change of climate and sea air, but had not seen any change in results. He thought that his mechanical treatment had been good.

There was one condition which he thought had not been touched upon sufficiently in connection with hip-joint disease, and that was extension of disease into the shaft of the bone, and remaining as chronic osteomyelitis. Of course, those cases did badly.

He had seen one case of amyloid degeneration get well after excision. He thought that when the liver was enlarged from amyloid degeneration in connection with hip-joint disease, it was a case for excision rather than mechanical treatment.

Dr. L. A. Sayre remarked that he had nothing to add to what he had already published many years ago. He knew of no alterations or amendments that should be made to the following doctrine, which he believed and taught: Medicate according to the actual demands of each case, and not for the purpose of combating a theoretical morbific cause. See that the patient has sufficient food and that it is properly assimilated. Carefully study and regulate the hygienic surroundings of the patient. Give the parts involved in the disease absolute rest and freedom from pressure without materially interfering with the mobility of the joint. Extension in such a manner as to permit motion should be the object sought for in any mechanical appliance, except in cases in which the inflammation is so violent that *absolute rest* is required for a time. In cases in which the bones and cartilages are involved, and there is suppuration, spontaneous recovery is extremely rare. In such cases nature can be aided by dilating sinuses leading to dead bone, perhaps making free openings in various directions, inserting drainage-tubes, etc., thus facilitating the ready and complete exit of the discharge. "If, notwithstanding this treatment, the discharge does not diminish, but rather increases; if the disease, instead of improving, progresses despite all your efforts to subdue it; if symptoms of progressive caries develop; if the general health of the patient is daily becoming undermined, and there are no symptoms indicating repair, the only justifiable treatment left for the surgeon is exsection of the joint. More can be done in half an hour with the knife and saw in way of removing dead bone than can be done by Nature in many years."

Dr. Sayre then referred to the history of several cases, with photographs of the patients, in which there was much more motion than in any of the cases presented by Dr. Judson.

With regard to exsection, he had performed it in seventy-three cases, and in no instance had the patient died in consequence of the operation. There was no immediate danger in connection with the operation. In cases in which the patient was suffering from constitutional disease, the earlier the operation was performed, if done at all, the better would be the result, and if Nature did not show herself competent to remove the necrosed bone promptly, exsection should be resorted to rather than subject the patient to long-continued suppuration and the dangers by which it was commonly accompanied.

Dr. J. C. Hutchinson thought that it was impossible to fix the joint with any of the appliances exhibited. He maintained that it was impossible to fix the hip-joint except by apparatus extending to a considerable distance above upon the trunk. He also maintained that it was unnecessary to use any apparatus to produce fixation, because when the joint was diseased, it was firmly fixed by the constant action of the peri-articular muscles. He also maintained that it was unnecessary to use any apparatus to produce extension. He had not yet seen any apparatus that did not require constant attendance to enable it to keep up extension. But, even if extension could be made by any of the apparatus used for that purpose, he maintained that it was not necessary, for sufficient extension could be secured by the weight of the limb. [See Medical Record, vol. xv., No. 19.] A greater amount of extension could be obtained by putting a high heel and sole on the shoe worn on the well side and giving the patient a pair of crutches, than in any other way. He believed it to be impossible to separate the head of the bone from the acetabulum by any mechanical appliance, and all an apparatus could do was to prevent the head of the bone from jamming up into the acetabulum, and thus prevent pain.

THE NEW YORK THERAPEUTICAL SOCIETY.

Stated Meeting, April 9, 1880.

Dr. H. T. Hanks, President, Pro Tem.

OXALATE OF CERIUM AS A COUGH REMEDY.

Dr. Andrew H. Smith, Chairman of the Committee on Restoratives, reported cases illustrating the different degrees of success obtained in the use of oxalate of cerium in the treatment of cough. The report was based upon 84 cases furnished by the following observers: Drs. Hobart Cheesman, G. Bayles, H. W. Little for Dr. A. Hadden, F. A. Castle, C. E. Billington, Cameron, Purdy, and the Chairman. The sub-report made by Dr. Cheesman, of St. Luke's Hospital, contains a résumé of the literature of the subject, which the Chairman adopted as the introduction of the report, and it embraced references to Drs. Allport, La Roe, Morje, whose writings have already appeared in the Medical Record, to Simpson, of Edinburgh, who regarded the agent as a sedative and conserver of nerve-force, and to others.

Dr. Cheesman had used the remedy in hospital practice from July 1 to November 1, 1879, allowing it to take the place of all sedatives, including opium, and in the daily average of *phthisis* patients. It was uniformly administered in the form of a dry powder, and notes were taken in 69 trials. In 39, marked relief followed; in 19, the cough was moderately relieved; and in 11 no relief whatever was afforded. Of the

11 in which the remedy was entirely inefficient, 9 were in the third stage of the disease, and in 8 the Philadelphia preparation was used. In all the cases in which the cough was relieved, Merck's oxalate of cerium was used. The drug was given, as a rule, two or three weeks, and often intermitted, for a time, to test its efficacy. Five grains were given on waking in the morning and at bedtime, as average doses. In some cases the dose was increased in size progressively, perhaps to 10 grains twice a day, with occasionally a dose of 5 grains in the middle of the day, and with benefit. Dr. George Bayles had furnished reports of 3 cases of phthisis, in which doses of 5 to 10 grains were given with marked benefit. He also furnished reports of two cases of chronic bronchitis, which were markedly benefited by taking *three* and five grains in the morning, and 6 and 10 grains in the evening respectively. Of cases of acute bronchitis, one was greatly benefited by the use of 3 grains in the morning and 6 in the evening. Several cases of acute bronchitis were not benefited at all by the use of the drug. He also furnished reports of cases of the cough of dentition treated by the use of oxalate of cerium, in which doses of one or two grains in the morning and two or three in the evening were given with marked benefit. In two cases of pertussis, in which the patient received respectively 5 and 3 grains in the morning, and 10 and 6 in the evening, the effect was markedly beneficial. In several other cases no good effects were noticeable. He had also used the remedy in cases of spasmodic asthma in doses of 5 grains in the morning and 10 in the evening, with good results. He also furnished cases of other diseases in which the remedy was used with more or less of benefit. Dr. James R. Leaming had furnished the notes of three cases of phthisis in which he had used the remedy, and reported that it was, perhaps, the most valuable he had used, inasmuch as no unpleasant consequences followed, and it had a good effect upon the appetite. Dr. H. W. Little, of the Presbyterian Hospital, had furnished notes of three cases of phthisis for Dr. A. Hadden, and in none was any benefit derived from the use of the remedy.

At the close of the reading of the report, Dr. Hadden remarked that the cases reported as belonging to his service were hardly fair ones, because they were not thoroughly reported. In the first case, the patient had great irritability of the stomach, and had delirium, which he thought was partly due, at least, to discontinuance of opium that had been taken for a long time. The second was a case of fibrous phthisis, and was markedly relieved. In the third case the cough was relieved for a few days, and after that the remedy had no effect whatsoever. He had not used it in private practice, but now saw a reasonable basis for its trial. One reason for the incomplete report of the hospital cases, doubtless, was the fact that while using the drug his term of service expired, and the Visiting Physician who followed him did not continue the use of the remedy. Dr. F. A. Castle had furnished full notes of two cases of phthisis in which 6 grains administered twice daily gave marked relief from the cough. The second case illustrated, in a striking manner, the difference in the value of different preparations, Wyeth's being useless, and Merck's efficient. Drs. Billington, Cameron, and Purdy, had furnished notes of cases in which temporary relief was obtained by the use of the drug. The Chairman reported *five* cases of phthisis, in four of which temporary benefit was obtained by the use of the oxalate of cerium, in doses of 10 grains twice a day.

From the well-known sedative effect of the drug upon the stomach, it might reasonably be expected that it would benefit cough by allaying reflex gastric irritation. In addition to that, it was believed that it had a direct sedative effect. The conclusions reached by the Committee were the following:

1. Oxalate of cerium could be safely administered in doses of 10 grains, three times a day, for many days in succession.

2. The only unpleasant symptom, when so used, was slight dryness of the mouth that appeared after several days.

3. It was probably the most efficient when administered dry upon the tongue.

4. Its effects were not produced until two or three days after its use was begun, and lasted for two or three days after the remedy was discontinued.

5. It was most efficacious in the treatment of chronic cough, and the initial dose should be 5 grains.

6. In the majority of cases it had not proved an efficient cough medicine for any considerable length of time, but could be regarded as a valuable agent to be employed in alternation with other remedies.

7. It did not disturb the stomach; on the contrary, it relieved nausea and improved digestion.

8. Different preparations upon the market were not equal in value; and when success was not obtained by one, another should be substituted.

The President spoke of the uncertain action of the remedy in the treatment of the vomiting of pregnancy, and possibly it was due to the fact that he employed the Philadelphia preparations, and at the same time used small doses; whereas large doses of a more reliable preparation should have been employed.

THE NEW YORK SOCIETY OF GERMAN PHYSICIANS.

Stated Meeting, March 26, 1880.

Dr. H. J. Garrigues, President, in the Chair.

STEEL SPLINTER LODGED IN THE EYE—REMOVAL BY INCISION.

Dr. Knapp exhibited a patient on whom he had performed an operation for the removal of a small fragment of steel, which had entered the eye and lodged in the ciliary body. The operation was done thirty days previously, in the following manner: An incision was first made in the direction of the inferior border of the internal rectus muscle; an electromagnet connected with an ordinary battery was then applied to the foreign body, but failed to effect its extraction. Unsuccessful efforts were then made to dislodge the steel splinter by means of small hooks and curved forceps. It was finally decided to make a second incision, at right angles to the first, thus forming a scleral flap which at once revealed the body firmly fastened in the corpus ciliare. Excision of the splinter was practised and the flap sewed. During the operation, a slight quantity of aqueous humor escaped. The wound healed by primary union. The eyeball gradually regained its normal tension, this having been lost some time after the entrance of the foreign body. The retinitis formerly present had lost in intensity. The patient was now able to distinguish objects which were held near his eye. The steel splinter was presented for inspection, and the electro-magnet employed by Knapp demonstrated. It was called that of Hirschberg.

Dr. Gruening stated that for some time past he had been engaged in perfecting the construction of a magnet for a similar purpose. His own apparatus does away with the necessity for employing a battery, since it is constructed on the principle of the armature (vide page 184). This he considered a great advantage over Knapp's instrument, as it was thus readily portable, and might be added to the armamentarium of every oculist. He believed Dr. Knapp's apparatus to be essentially his own, and not constructed after Hirschberg's model.

Dr. Knapp replied that he had had no knowledge of the fact that the apparatus used was Dr. Gruening's. He had considered it as a Hirschberg instrument, and did so now.

PARTIAL RHINOPLASTY.

Dr. Gerster showed a patient upon whom he had successfully performed a partial rhinoplasty. The history was one of nasal lupus, destroying the right ala of the nose. A flap was taken from the forehead. It was four inches long and one inch broad. The terminal portion was turned upon itself to form a margin for the nasal opening. Three weeks after the primary healing of the flap, its connecting bridge was removed, and the patient's appearance was now greatly improved.

LIGATURE OF EXTERNAL ILIAC.

Dr. Gerster also exhibited a patient upon whom he had ligatured the external iliac artery, for a rapidly growing femoral aneurism. The case was of traumatic origin. The patient, 46 years of age, had syphilis five years previously. About fifteen months ago, while engaged in rowing a heavy boat, he slipped, and made a violent effort to prevent his falling backward. After three days he became aware of a distinct throbbing in the region of Poupart's ligament, and also noticed a swelling there, which subsequently became a pulsating tumor, about as large as a man's fist. His general health also suffered, he became anæmic, and entered the German Hospital on the third of January, 1880.

Compression by a pole, after Esmarch's method (vide "Esmarch's Surgeon's Handbook," p. 126), was tried, but failed to produce the desired effect. On the 17th of January, 1880, the operation was performed as follows: A long incision was made, because the extent of vascular degeneration could not be ascertained. Vessel ligatured by a firm carbolized violin string (E cord), superficial drainage established, sutures and antiseptic dressings. Wound healed by primary union, with the exception of its lower angle, where the drainage-tubes had exerted some pressure. Collateral circulation was rapidly established, the leg feeling quite warm in so short a time as three hours after the operation. Patient left his bed on February 17th, and is now able to follow his occupation. The site of the aneurism is at present occupied by a small hard mass, which is devoid of all tenderness.

SARCOMA OF KIDNEY.

Dr. Jacobi presented a specimen of a large sarcoma of the kidney, occurring in a child about four years old. The sarcomatous nature of the solid tumor had been suspected on account of the excellent general health of the child till shortly before its death. In cancerous disease this was not the case. The tumor was of congenital origin. The other kidney was found to be normal.

Dr. Wendt mentioned the occurrence in an elderly man of a similar, only very much larger tumor. The patient had died of progressive marasmus. The autopsy showed a solid sarcoma slightly adherent to the surrounding viscera. The other kidney was enlarged to double its natural size. The disease had run a remarkably long course, giving its first symptoms about five years before death.

Dr. Zinsser referred to a similar case, observed in a child four and a half years old. It had occurred in the practice of the late Dr. Krackowizer. The child had died during narcosis, established for purposes of examination.

Dr. Jacobi called attention to the possibility of mistaking empty intestine, when pressed against the abdomen, for the tumor itself—a mistake which had happened in his own practice. He also referred to the pseudo-fluctuation often found in these soft tumors.

Dr. Knapp spoke of cases of optico-ciliary neurotomy which had lately been reported by Schröler and Mauthner. Union of the optic nerve, after its section, had been anatomically demonstrated.

Dr. Gruening instanced a case of myxoma of the optic nerve where a portion of the latter had been removed. He believed that excision was preferable to simple section, when permanent results were desired.

Dr. Jacobi reported the history of a case of profuse cerebral hemorrhage. The symptoms had made the diagnosis waver between embolism and hemorrhage. The patient had complained for some time past of occasional attacks of severe headache and loss of consciousness. He had a slight mitral systolic murmur.

The fatal attack was ushered in by severe convulsions during loss of consciousness. They began at 4 P.M. and continued, with short intervals of repose, until 9, when a pause ensued. This lasted until 12. About this time the convulsions returned with additional intensity and at half-past one the patient died. During the intervals of repose, the patient appeared to be quite conscious and exhibited no indication of paralysis. The autopsy revealed a chronic superficial meningitis, and the presence of profuse hemorrhage in the left hemisphere. This had originated in the posterior cornea, and the blood had found entrance into the lateral ventricle of the opposite side. The microscopical examination revealed slight fatty degeneration of the blood-vessels and an abundance of miliary aneurisms. The bursting of one of them was the probable cause of the hemorrhage. The convulsions he regarded as of reflex origin.

Correspondence.

NITROUS OXIDE AS A THERAPEUTIC AGENT.

To the Editor of The Medical Record.

Dear Sir: Your issue of January 31st contains an article entitled, "A Preliminary Report upon the Use of Dilute Nitrous Oxide Gas in the Treatment of Melancholia and Nervous Exhaustion," intended by the authors as a sort of memorandum of discovery, or notice of priority. They say in the concluding paragraph: "At present we deem it our duty to suggest to the profession the employment of a remedy heretofore only used for surgical purposes, which in its new method of employment promises a great

deal." I desire to call their attention, if this has not been done already by another, to a little treatise published in Philadelphia in the year 1865, by J. B. Lippincott & Co., entitled "Researches on the Medical Properties and Applications of Nitrous Oxide, Protoxide of Nitrogen, or Laughing Gas. By George J. Ziegler, M.D., Physician to the Philadelphia Hospital, etc." They will there find a very careful and conscientious study of the "physiological influences and hygienic uses," and "medicinal properties and applications" of this agent.

The author is an enthusiast, and his views are somewhat rose-colored, but have undoubtedly a basis of sound, scientific reasoning. He is "convinced that protoxide of nitrogen will supersede, to a considerable extent, some of our most reliable and popular remedies, while at the same time it will render the prevention and resolution of many of the ordinary forms of disease more certain, speedy, and decided." Among the remedies which he thinks likely to be thus superseded is *quinia*. He ascribes to it, among other therapeutic properties, that of a "permanent chemico-organic, arterial, nervous, cerebral, and general stimulant," and "a superior hæmatic, neurotic, nutrient and tonic." With these views, it is not surprising that he should claim that "its power of averting and removing disease of an asthenic nature, more particularly . . . . is certainly very great," or that he should enumerate among the affections in which the happiest results might be anticipated from its use, "asthenic dyspepsia," "enervation," "neuralgia," "melancholy," and "a dynamic state generally," or that he should consider it "exceedingly valuable in adynamia of the brain and nervous system." He says: "Thus, in the numerous asthenic derangements of enervation and cerebration, manifested in the different forms and degrees of enervation, anæsthesia, neuralgia, imbecility, mental depression, hypochondria, delirium, and similar mental states, it is generally applicable. By regulating vital action, and intensifying all the functions of life, protoxide of nitrogen often proves very efficient as an anodyne, hyperotic, and general nervine, in correcting undue excitability of body and mind, relieving pain and suffering, promoting sleep, removing vital inertia and atony, and in restoring the healthy balance of the economy." I think these quotations cover all the effects observed by the authors of the article referred to. Shortly after the appearance of this little volume, if I mistake not, the "Compound Oxygen Treatment" made its appearance in Philadelphia. Dr. Ziegler's enthusiastic announcements fell very dead upon the intense and decorous conservatism of Philadelphia medicine. But not so upon all ears.

Was it that "fools rushed in where angels feared to tread"? Or rather, that wise, though not strictly ethical, men appreciated discoveries which "fools were slow of heart to believe"?

I happened about the same time to have some patients belonging to the Society of Friends, who exhibited, to a marked degree, the uncomfortable and altogether unwarrantable peculiarity of that sect of Christians of insisting upon doing their own thinking. These unreasonable persons expressed a strong inclination to try the new "oxygen" treatment. With a laudable desire to prevent them from falling into the hands of irregulars, I assured them that I could administer it myself. After a consultation with Dr. Ziegler, I procured the necessary materials and apparatus, and manufacturing both this gas and oxygen in my own office, exhibited them sometimes in combination, but, more frequently, the nitrous oxide alone.

One of these patients was a male, somewhat advanced in life, suffering from intense hypochondria: one was a female also, past middle life, with slight tuberculous deposit in one lung, and great depression of spirits; another was suffering from uterine disease with asthenia. In all of these cases, the immediate result of the inhalations was invariably to exalt the spirits and improve the whole tone of the system. They were all under treatment by massage and localized movements, so that their general progressive improvement could not be entirely attributed to the use of the agent in question, but it undoubtedly had its share in the favorable result. The two women continued permanently relieved. The man soon fell back into a despondent condition, although not to the same extent as before he came under my care.

I write, however, not for the purpose of detailing my own experience, but of claiming for a much neglected brother the "honor due unto his name." My attention was so closely occupied in other directions, that I neglected to pursue this investigation farther. It is a matter of congratulation that it has been taken up by gentlemen so competent to judge of the exact merits of the agent. In regard to its hypnotic value, I may add that, while I was manufacturing it, I was in the habit of taking a bag of the gas to bed with me, and that it never failed to procure for me a very delightful and refreshing night's sleep.

Respectfully yours,

BENJAMIN LEE, M.D., PH.D.

1503 SPRUCE STREET, PHILADELPHIA, April 20, 1880.

THORACENTESIS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The interest manifested in this operation is my only excuse for reporting the following (to me at least) interesting case: Katy F——, aged four years four months, while visiting in Jersey City in March, 1879, was taken sick and treated for pneumonia, left side. In about four weeks she was brought home. When I first saw her, she was pale, anæmic, had on an oil-silk jacket, and almost the whole back above the diaphragm was vesicated with turpentine. On auscultation of the lower portion of the chest, left side, there were distinct friction sounds, respiration somewhat humid, hacking cough, temperature normal. She remained much in this condition until the 1st of June, when there was evidence of fluid in the pleural cavity. No treatment relieved this condition. On the contrary, the fluid rapidly increased, so that by the middle of July the chest was much distended and the heart displaced. It seemed to be beating to the right of the median line. Cough constant; patient much emaciated. The only position in which she could obtain any sleep was on her side, with her knees well drawn up, her head and chest thrown forward. Her condition was indeed pitiable. With the assistance of Dr. Marvlag (July 17th) the aspirating needle was introduced between the sixth and seventh ribs. Fifty-three ounces of ordinary healthy-looking pus was withdrawn, with very great relief to the patient. For two weeks she was quite comfortable. The cavity, however, was gradually filling, and on August 16th she was again aspirated, when forty-two ounces of pus was removed. This operation failed to afford as much relief as the first. The cavity rapidly filled; she was again (Aug. 23d) aspirated for the third time, when thirty-two ounces

of much less healthy looking pus was removed; the needle was withdrawn, because of the severity of the symptoms. The cavity rapidly filled, the patient was becoming much exhausted, and it was evident, that if permanently relieved, the relief must come in some other way than by aspiration. I determined to make a free incision, and put in a drainage-tube. The place of necessity seemed to be below the ninth rib at about its junction with the costal cartilage. On the 7th of September, Dr Chadeck assisting, I attempted to make a free incision into the pleural cavity; I did not cut quite deep enough. The patient had decided objection to more cutting, so I directed a warm poultice. In about two hours the wound discharged copiously. A free discharge was kept up for several days, then each day it became less free and less pus-like. The wound in the skin was kept open by pledgets of oakum. For about six weeks the child improved rapidly, the discharge diminished in quantity and improved in quality, until only a few drops of pure serum would flow, when the patient coughed, or when the pledgets were removed, and finally, when the tents showed only a slight moisture on being removed, the wound was allowed to heal. It is now some months since this was allowed to close. The child has gained flesh, sleeps well, eats well, breathes well, and does everything that a healthy five year-old girl ought to do. There was no necessity for a drainage-tube, and the cavity was not washed out. Drs. J. S. Green, C. F. Stillman, J. N. McLean, and others, have examined her within a few weeks, and consider her lungs in a thoroughly healthy condition.

H. H. JAMES.

RAHWAY, N. J., April 3, 1880.

EXFOLIATIVE DERMATITIS OR PEMPHIGUS?

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—J. G——, aged 52 years, previously enjoying good health, first called upon me October 10, 1878, for the relief of a sore throat and mouth from which he had been suffering a month. Upon examination I found an ulcerated condition of a large portion of the mucous surfaces of mouth, throat, and nares; this increased gradually, until the mucous membrane was entirely denuded from lips, gums, tongue, throat, palate, and posterior nares, leaving an ulcerated and angry surface considerably swollen, and the stench from which was indescribably and horribly fetid, scenting the whole house, and requiring powerful disinfectants and the keeping open of the windows of his room in the coldest weather. At this date, January 1st, the disease manifested itself in the scalp and upon different parts of the body, gradually extending until nearly the whole surface of the same was denuded of the epiderm. The hair coming out, finger and toe nails came off, followed by new ones. The cuticle also rapidly reformed, only to be again cast off.

At this stage, under the use of Fowler's solution, quinine stimulants, and cod-liver oil, the disease abated for a time; the mouth healed, new epiderm formed, appetite returned, pulse fell from 130 to 80, and the terrible fetor disappeared; but about March 1, 1878, the disease manifested itself again with greater intensity than before, involving the same tissues and extending to the bronchi and lungs, also to the stomach and intestines, the fetor, as before, being simply horrible. At this point I will endeavor to describe the appearance of the disease in the skin. It was that of circular blisters, some of which were several inches in diameter and coalescing, raising and filling with serum, spreading rapidly, the exfoliation being followed by a copious discharge of a purulent character. It would then change to a thin, green, finally watery exudation, then cease, and new cuticle commence in the centre extending outward; and at the same time the blistering process would go on at the outer edges, extending and being followed by the reparative process. *It was true there was pain* or disease of the glands, and but little increase of temperature. He complained of alternate flushes of heat and cold. The disease spread as before, until it covered every part of the body and extremities. When the bulla or blisters were removed, the derm beneath was angry and somewhat swollen, similar to the condition produced by a fly-blister. At this time there seemed to be a general want of nutrition and great prostration. Œdema of lower extremities and a feeling of the cuticle in the spaces not involved by the vesications, similar to that observed in cerebro-spinal meningitis, and it could be stripped off like that from the hands after scarlatina. The expectoration from the lungs became very copious, and of the same purulent and fetid character. Immense quantities were now passed from the bowels and bladder, and a sudden and very copious ones is occurred of dark, grumous, coffee-ground looking matter, after which he sank rapidly and died in a few hours. His death occurred April 6, 1878. As he had thought some months previous to his illness that there was a small tumor in his intestines which at times he could feel (but which was not mentioned to me until after his death), I proposed an autopsy, but it was not permitted.

Very respectfully yours,

R. S. HARNDEN.

WAVERLY, N. Y.

TESTS FOR COLOR-BLINDNESS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In the MEDICAL RECORD of April 10th, on p. 416, apropos of the circular by which the Secretary of the Treasury authorizes the examination of pilots for color-perception "by any respectable resident physician," is a paragraph relative to the use of Holmgren's test so misleading in its suggestions that I beg space for a word of warning.

The passage referred to is as follows: "A pile of worsteds, of various colors and shades of the same color, is placed before the person to be examined. A skein of worsted of a particular color is then selected and placed on one side; the examinee is then required to pick out all the worsteds which have any shade of this particular color. If he does this successfully, another color is selected and matched in the same way. It is generally sufficient to match two colors. Green and red are the ones oftenest used."

To test a person's ability to distinguish instantly and invariably a red light or flag from a green one is by no means so easy a matter as at first sight it appears; and an examination for this purpose by one who has not specially studied and practised its theory and method is worse than no examination at all, being liable to give a false assurance of security. So well is this understood in Sweden and Holland, that the railroad surgeons charged with this duty are all practically and personally instructed by Holmgren and Donders, the controlling experts.

Suppose a respectable practitioner, whose atten-

tion has never been particularly directed to this matter, called upon by a pilot for examination, and depending upon the hints above quoted. Although informed (incorrectly) that "green and red are oftenest used," yet seeing the statement that "it is generally sufficient to match two colors," he may suppose that *any* two will do. He selects perhaps yellow and blue—as a railroad official in Massachusetts did within my own knowledge. The result may be the same as it was in that case, in which the examiner passed, as having perfect color-perception, a person who is completely red-blind and *unable to distinguish red from green*.

In fact, for conclusive reasons which there is not room to detail here, the color first used in Holmgren's test should *always* be a bright, pure green. This, properly used, will detect the existence of color-blindness. The second color, for determination of the *kind* of color-blindness, is *not* "red," but medium purple, called by dealers "Magenta." The misunderstanding and consequent misuse of Holmgren's test have led to many errors on the part of examiners.

The use of the worsted-test, as explained in detail by Holmgren (the only English translation of whose complete instructions is given in Dr. B. Joy Jeffries's book on "Color-Blindness: Its Dangers and its Detection"), though very simple, requires a thorough practical knowledge of the subject; and any physician undertaking such examinations without that knowledge is in imminent danger on the one hand of certifying to the normal color-sense of really color-blind pilots, and on the other of refusing certificates to those not color-blind, but who from carelessness or want of familiarity with colors, appear to be so. Perplexing cases of the latter class are very common.

An experience of some months in the almost daily examinations for color-blindness which are a part of my official duty, and in witnessing hundreds of other such examinations, is my ground for cautioning my professional brethren against the risk both to the community and to their own reputation involved in undertaking, without careful special preparation, the examinations allowed by the Secretary's circular.

J. F. Head,
Surgeon U. S. Army.

Boston, Mass., April 19, 1880.

THE USES OF COCA IN SOUTH AMERICA.

To the Editor of The Medical Record.

Sir:—Your valuable journal, which has solaced many a weary hour, overtook me while on a journey into the very districts in which grows the coca of which you speak in your edition of February 21, 1880. I have been conversant with coca for the past eight years, and would say, from personal observation and experience, that the great encomiums lavished upon its use, are, to use a very expressive slang term, all *bosh!* I have read before of the experiments of Sir R. Christison, and believe that if he had taken a good stiff glass of brandy and water, Scotch whiskey, or a strong cup of green tea, he would have been just as much, if not more refreshed, than if he had taken a pound of coca.

Coca will relieve and in a measure prevent thirst; so will chewing a bullet. I do not think it will prevent hunger as well as tobacco. Given in the form of an infusion it will relieve colic; taken in the form of tincture or extract it promotes the digestion and excites the genital functions. All the so-called coca bitters, etc., only contain a small amount of coca and a large quantity of columbo, gentian, and other well-known vegetable tonics.

The food of the Indian here is composed largely of toasted corn and potatoes; he chews the coca the same as an American chews his tobacco, the Irishman indulges in his dudeen, the East Indian in betel, and the Chinese in tea and opium. The use of the lime is for sweetening purposes, as the Indian has a very great dislike for anything bitter. As far as my knowledge extends there is no nation which has not some form of intoxicant, narcotic, or excitant which has been extolled and from time to time adopted as an article of diet or medicine in civilized countries. Coca has a very limited use, and principally among the males of Peru and Bolivia who inhabit the higher altitudes of the Andes, the women rarely indulging in its use and the coast Indians hardly knowing its name.

When I return from my excursion I will give you some further particulars in regard to its use and effects. In the meantime I would only advise my professional brethren not to consider that the elixir of life has been found in the leaves of E. Coca.

My residence for three years in Cerro-de-Pasco,* the highest (I believe) inhabited city in the world, and eight years' residence among the Andes at an elevation of from 5,000 to 17,000 feet, enables me to speak with authority on the subject.

Yours, truly,
Geo. A. Ward, M.D.

Ambo, Peru, S. A., March 23, 1880.

New Instruments.

NEW HOLDER FOR SIMS'S SPECULUM.

By GEO. E. FRANCIS, M.D.,

Worcester, Mass.

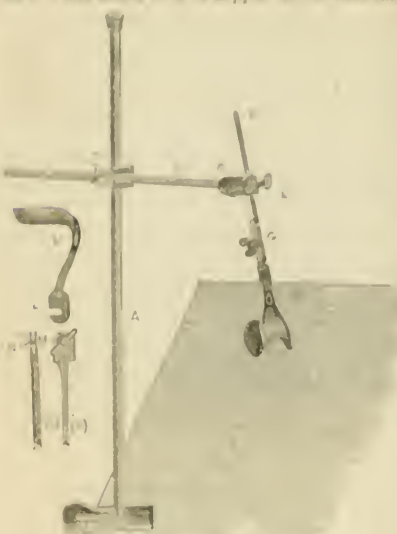
Having often desired to use the Sims's speculum in my office when I was unable to obtain, on the instant, the services of an assistant competent to hold it, I have constructed a mechanical holder, which, on trial, does the work so well as to lead me to describe and figure it for the benefit of those among your readers who have, for similar reasons, been obliged to use less perfect speculums in the diagnosis and treatment of uterine disease.

The woodcut shows at once the general construction of the holder. A is an upright steel rod, fixed to the edge of the table, and B a square steel bar, connected with A by the sliding-block C, which is furnished with thumb-screws for fixation. B supports at its expanded end, D, a socket, E, which can be fastened at any angle in a vertical plane, and which carries a round rod, F, which, in turn, can be fixed at any position of rotation or height by its thumb-screw. To the lower end of the rod, F, is attached the Sims's speculum blade H, by the joint G, and to the construction of this joint is due whatever claim to novelty and merit the instrument may possess.

As will be seen, the usual double Sims's speculum is cut in two in the middle of the shank, K, giving two single blades; to the cut end of the shank is fastened a notched plate, about an inch wide and

*Cerro-de-Pasco has an elevation of 14,500 feet; population, about 8,000.

constructed of steel rods, L, which fit snugly between two smaller parallel plates, M, fastened to the rod F. The notch in the speculum plate allows it to pass a quarter-inch screw, N, which serves to clamp the three plates immovably at any angle. A turn back of this screw allows the speculum to be set at a new angle, or to be slipped out for removal.



I use the holder in this way: the woman being in the usual lateral position on the table, the upright rod is secured to the left side of the table, about twelve inches from the end nearest the operator. I first make an approximate adjustment for height, etc., by the binding screws at C, the other screws being loose, and then introduce the speculum blade into the vagina, and while one hand holds it in the desired position by the shank plate, the other hand brings to it the clamp G, and the binding screws at G, D, and E are then successively tightened.

Once in place, the speculum gives the patient much less discomfort than when held by hand, and her muscles resist it less, while the steel rods are sufficiently elastic to allow considerable change in her position.

I have the usual series of speculum blades, and in order to utilize them, when not using the holder, I have had made a handle of ebony, with a clamp-joint like G, which is quite as serviceable as the usual double form.

To Mr. W. F. Ford, of New York, I am much indebted for advice and assistance.

NOVEMBER 25, 1879.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from April 18 to April 24, 1880.

MEACHAM, F., Capt. and Asst. Surgeon. So much of Par. 1, S. O. 74, C. S., A. G. O., as relates to him is revoked. S. O. 87, A. G. O., April 20, 1880.

HALL, J. D., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Randall, D. T. S. O. 42, Dept. of Dakota, April 13, 1880.

WISSE, C. K., Capt. and Asst. Surgeon. When relieved by Asst. Surgeon Corbusier, to comply with Par. 1, S. O. 74, C. S., A. G. O., S. O. 32, Dept. of the Platte, April 14, 1880.

ARSWEGEN, P. C., Capt. and Asst. Surgeon. The operation of so much of Par. 1, S. O. 74, C. S., A. G. O., as relates to him is suspended until Sept. 1, 1880. S. O. 84, A. G. O., April 22, 1880.

MERRILL, J. C., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Shaw, M. T., and assigned to duty as Post Surgeon at Fort Custer, M. T., relieving Asst. Surgeon L. S. Tenney, to enable him to comply with S. O. 74, C. S., A. G. O., S. O. 42, C. S., Dept. of Dakota.

STANNUS, W. C., 1st Lieut. and Asst. Surgeon. The operation of so much of Par. 1, S. O. 74, C. S., A. G. O., as relates to him, is suspended until Oct. 1, 1880. S. O. 87, A. G. O., April 20, 1880.

CORBUSIER, W. H., 1st Lieut. and Asst. Surgeon. Relieved from duty at Camp Sheridan, and assigned to duty at Fort Washakie, Wyo. T. S. O. 32, C. S., Dept. of the Platte.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 24, 1880.

Week Ending	Typhus Fever	Typhoid Fever	Scarlet Fever	Cerebro-spinal Meningitis	Measles	Diphtheria	Small-pox	Yellow Fever
April 17, 1880	0	5	41	5	92	46	0	0
" 24, 1880	0	2	58	7	103	32	0	0

A BIT OF STRAW IN THE CANALICULUS.—Dr. T. G. Vincent, of Mankato, Minn., writes: "A few days ago a gentleman called upon me to remove a foreign body from his eye. Making a careful search under both direct and oblique illumination without result, I was about to give up the search, when I noticed that the punctum of the upper lid was filled by a body that slightly projected. It was easily removed and found to be a bit of straw, one-eighth of an inch in length, which had worked its way into the canaliculus. The gentleman stated that a gust of wind had carried it into his eye about three hours previous to his visit. This being a very rare location to find foreign bodies entering the eye, it is worthy to be recorded."

THE LATE DR. CHARLES H. H. SAYRE.—At a meeting of the Bellevue Hospital Medical College, called for the purpose of taking appropriate action on the occasion of the death of the late Charles H. H. Sayre, M.D., an alumnus of this college, and the eldest son of Professor Lewis A. Sayre, the following resolutions were adopted:

Resolved, That the untimely death of our late professional brother has occasioned in the mind of each member of this faculty a feeling of deep grief, and

we tender to our beloved colleague, Professor Sayre, and to all the members of his family, our heartfelt sympathy in the great bereavement by which, in the inscrutable dispensation of Providence, they are afflicted.

Resolved, That in the death of the late Dr. Sayre, all who enjoyed his friendship will mourn the loss of one who had endeared himself to them by his noble and generous qualities; his afflicted father has lost not only a beloved son, but an able associate in his arduous duties, and the medical profession is deprived of a talented and skilful member.

Resolved, That a copy of these resolutions be transmitted to Professor Sayre, together with the fervent wishes of his colleagues for a speedy recovery from his present illness.

ISAAC E. TAYLOR, M.D., *President*.
AUSTIN FLINT, JR., M.D., *Secretary*.

BELLEVUE HOSPITAL MEDICAL COLLEGE.—Dr. A. A. Smith has been elected Professor of Therapeutics, Materia Medica, and Clinical Medicine.

AMERICAN MEDICAL ASSOCIATION.—At a meeting of the Committee of Arrangements of the American Medical Association, held April 9, 1880, Prof. T. Gaillard Thomas, M.D., was unanimously elected Chairman of the Committee of Arrangements in place of Dr. S. O. Vanderpoel, who recently resigned.

TO PRESERVE THE STRENGTH OF MAGENDIE'S SOLUTION.—Dr. H. H. Kane writes: An error occurs in the formula given at p. 471 of your journal for April 24th. The formula should be:

℞. Morph. sulph.....	gr. cclvi.
Acid salicylic.....	gr. viij.
Aq. distil.....	f ʒ xvi.

M., etc.

This is the formula of Dr. H. M. Keyes, he having called attention to its successful employment in Roosevelt Hospital, some years ago.

THE BILL TO REGULATE THE PRACTICE OF MEDICINE IN MARYLAND failed to pass at the recent session of the Maryland Legislature. The same fate met the "Bill for the Protection of Patients in Confidential Communication with their Medical Attendants."

THE REPUTATION OF BORACIC ACID in eye diseases is slightly on the wane. Much success is reported for it in inflammations of the various mucous membranes, as of the throat, urethra, vagina, and bladder.

DR. MATTHEW KEMPF, Professor of Surgery in the Kentucky School of Medicine, died from pneumonia on the 27th of March, at the age of 53. His memory was honored by a mass meeting of the profession of Louisville.

Dr. A. B. Cook has been appointed to the vacant professorship.

THE SANITARY COUNCIL OF THE MISSISSIPPI VALLEY met at St. Louis, April 22d. The Council voted in favor of increasing the efficiency of the National Board of Health. Dr. R. C. Kedzie, of Lansing, was elected President; Dr. Pinckney Thompson, of Henderson, Vice-President; and Dr. John H. Rauch, of Chicago, Secretary.

THE TYPE FOR SCHOOL-BOOKS.—Dr. Gaval, of Sarbonne, says: "Other things being equal, the legibility of a printed page does not depend on the height of the letters, but upon their breadth."

FOR SEA-SICKNESS.—A mixture of bromide of potassium and hydrate of chloral, taken effervescing with citrate of magnesia, has never failed but once. This is the experience of Surgeon F. W. Cory, of the Australian Mail S.S. Co.

WITHOUT ANUS OR PENIS FOR FIFTY YEARS.—Dr. Wheeler mentioned, at the meeting of the Surgical Society of Ireland, Feb. 13th, a case recorded by Bartholin in which there was neither anus nor penis, and all the ingesta were returned by the mouth for more than fifty years.

THE BILL TO PUT DOCTORS' BILLS on the list of preferred claims, which was before the Kentucky Legislature, failed to become a law. The opposition to it was quite extensive.

THE FOUR MEDICAL SCHOOLS OF LOUISVILLE have raised their price for professors' tickets to seventy-five dollars. The regulations in regard to attendance on lectures have also been made more stringent.

MAPLE SUGAR IN THE TREATMENT OF DIABETES.—Dr. H. Brubaker reports a case of diabetes mellitus in a patient æt. 70. The patient had been suffering for several years and was much emaciated. He had a fondness for maple sugar, and was finally told to eat it ad libitum, no restrictions being placed on this diet. From this time the sugar in his urine began to grow less, and finally entirely disappeared, as did the other diabetic symptoms. The patient died, however, from other causes.—*Clinical Record*.

PRESENTATION OF A BUST OF DR. J. MARION SIMS.—At a recent meeting of the Alumni Association of Jefferson College, a bust in bronze was presented to the Society by the surgical staff of the College Hospital. The presentation was made by Dr. Levis. The bust has been received by the Board of Trustees of the Jefferson College Hospital, and is to be placed in the hall of the hospital.

OUR INTERNATIONAL SANITARY CONFERENCE.—In a recent leading article the *Lancet* discusses the Sanitary Conference that is to take place under the direction of the National Board of Health in Washington this month. There is an inclination shown by the writer of the editorial to ridicule the Conference; and it is stated that the elaborate work of the National Health Board in the direction and for the securing of quarantine, indicates rather regression than progress. International Sanitary Conferences so far have been failures.

THE CONVENTION FOR REVISION OF THE U. S. PHARMACOPŒIA will meet in Washington, Wednesday next. IN PARTIES OF TEN a single railroad ticket is issued for *the ten* at the rate of $10.25 for the round trip to Washington and return; leaving New York *Tuesday* 4th, at 4 P.M., and, returning, leave Washington on Saturday morning.

NEW YORK ACADEMY OF MEDICINE.—At the meeting of the Academy of Medicine, 6th inst., a memoir of the late Freeman J. Bumstead, M.D., LL.D., will be read by George A. Peters, M.D., with a presentation to the Academy of a portrait. Also a paper by Dr. John H. Packard, of Philadelphia, On Some Important Advantages to be Secured by Oblique Section of the Skin in Surgical Operations.

AN OPHTHALMOLOGICAL JUBILEE.—Dr. Mooren, a celebrated German ophthalmologist, has recently celebrated at Dusseldorff a rare form of jubilee. He has entered on his list his 100,000th patient, having performed 16,765 great operations, 3,700 being for cataract. The town celebrated the event with festivities.

A British Dental Association has been organized by the registered dentists of Great Britain. The Association is a close copy of the British Medical Association, having established branches and undertaken the editing of a journal. The journal is called the *Monthly Journal of Dental Surgery*.

The Twenty Fifth Annual Report of the Cleveland Hospital for the Insane, for 1879, shows that 665 patients have been in the hospital during the year. The percentage of recoveries in the 227 patients admitted has been 43.8.

Presbyterian Hospital, New York.—Dr. F. A. Castle has been appointed attending physician, *vice* Dr. S. T. Hubbard, resigned; and Dr. Leroy M. Yale has been appointed attending surgeon, *vice* Dr. W. T. White, resigned.

There are two vacancies in the medical board yet to be filled, one occasioned by the death of Oliver White, and one by the resignation of Dr James L. Banks.

St. Luke's Hospital, New York.—Dr. W. T. Bull has been appointed attending surgeon to St. Luke's Hospital, *vice* Dr. G. H. Wynkoop, resigned.

College of Physicians and Surgeons, N. Y., Alumni Prize of Five Hundred Dollars.—The Cartwright Prize of the Alumni Association of the College of Physicians and Surgeons, New York, which amounts to five hundred dollars, will be awarded, subject to the following conditions, to the best essay on some subject in medicine or surgery: 1. The prize is open to the competition only of alumni of the college. 2. The subject is left to the option of the contributor. 3. The essay must present sufficient original, experimental, or clinical observation to make it a useful contribution to medical knowledge. 4. The essay, designated by a motto, must be sent to a member of the Committee on Prize Essays, accompanied by a sealed envelope inscribed with the motto and containing the name and address of the author, on or before February 1, 1881. Committee: A. H. Buck, M.D., 52 East Thirty-first Street; J. E. Janvrin, M.D., 120 Madison Avenue; W. T. Bull, M.D., 33 West Thirty-third Street. The Alumni Prize, also of five hundred dollars, will be awarded in 1882, subject to the same conditions.

The New York Physicians' Mutual Aid Association, in its eleventh annual report, states that its financial condition is very satisfactory, but it needs an increase in membership. The object of this society is an excellent one; it appears to be well managed, and its benefits ought to be appreciated by a wider number.

Locomotor Ataxia, according to Dr. S. Weir Mitchell, is best treated with large doses of iodide of potassium. Dr. Mitchell has devised some crutches to aid ataxic patients in walking.

Measles have prevailed to an extraordinary extent in Chicago. The cases have mostly been mild in course, however.

The St. Louis Medical College announces that hereafter all students who matriculate at that institution must take a three years' graded course in order to graduate.

Parisian Hospitals.—In a recent letter from the Paris correspondent of the *Louisville Medical News*, a very interesting, but far from flattering account of the Parisian hospitals is given. In the first place, the writer says the nursing is wretched; the Sisters of Mercy are untrained, and they give but a small part of their time to the personal care of the patients. Their chief duty seems to be to serve the meals, look after the linen, sit in their rooms, and go to chapel. In one ward four patients were found lying with old bed-sores which had just been discovered. The beds themselves are often filthy with vermin. The dressings are made by the assistant nurses, who are generally untrained, poorly paid, and prostitutes; night-nurses scarcely exist. The supply of water is small, and baths are rarely given. It is comparatively rare for the surgeons to wash their hands, and it seems to be the rule to wipe the instruments upon the apron. No screens are put around the beds of the dying or dead.

The surgeons themselves are, as a rule, more intent upon developing a particular idea than in looking after the general welfare of the patient. This is illustrated in the case of M. Dumontpallier, who for some time used to go about his wards sticking pins into the patients who complained of pain. This was to test his theory that pain is lessened by pricking the corresponding point on the opposite side.

All these evils are said to exist in the hospitals of France, "the most civilized country in the world," and the country where there is the least fault to be found in the education and standing of the physician.

A Summer Sanitarium for Children in Baltimore.—By the will of the late Thomas Wilson, $50,000 has been bequeathed for the establishment of a summer sanitarium for the sick children of the city of Baltimore. The trustees of the fund are still engaged in maturing plans for the best disposal of the money. It is probable, however, that a large hospital will be built at some elevated part of the country not far from Baltimore. Here the children will be conveyed and treated for a longer or shorter time.

A Summer School of Botany has been established in this city by the New York College of Pharmacy. It is to be under the direction of Professor Andrew Wood, and will consist of laboratory work and excursions. It continues from May till October.

The Arkansas Medical Monthly.—This is the title of a new journal which has just appeared. It is published at Little Rock, by Dr. Jonathan J. Jones. The first number is very neatly printed and contains several original articles.

The Maryland Medical Journal will hereafter be published twice a month instead of once. The form will also be changed to that of a two column journal. The *Maryland Medical Journal* has always been ably edited, and Dr. Ashby will doubtless have increased success in his new departure.

Bromide of Ethyl has just been brought before the Paris Surgical Society as a valuable local anæsthetic.

Dr. Henry C. Chapman has been elected Professor of the Institutes of Medicine and Medical Jurisprudence, in Jefferson Medical College, in place of Prof. James A. Meigs, deceased.

State Medical Society of Arkansas.—The Fifth Annual Session of this Society will convene in the city of Little Rock, at 10 o'clock, Wednesday, May 5th next, according to adjournment. The meeting will be held in the Hall of the House of Representatives of the State Capitol.

Original Lectures.

THE ERUPTIVE FEVERS.

LECTURES DELIVERED

By ALONZO CLARK, M.D., LL.D.,

PROFESSOR OF PRINCIPLES AND PRACTICE OF MEDICINE, COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

SMALL POX.—LECTURE II.

THE topic that was occupying our attention at the close of the hour yesterday was the modes of preventing the scars of small-pox. I was saying to you that if the pock be emptied by the point of a lancet and kept empty, there is a report that no cicatrization will occur. Another method is, to open the vesicle and burn the papule with a stick of nitrate of silver, and repeat this from time to time as the vesicle forms anew. But it is a laborious practice, and the same results, it is reported, can be obtained in other ways. As, for example, by the application of the old mercurial plaster to the face; the plaster put upon leather and fitted to the face, and made to adhere by the adhesiveness of the plaster itself. The lead ointment, or lead plaster rather, warmed, becomes soft. Take some of the material before it is spread and mix with it a certain quantity of the oil of almonds, so that it will be soft, and can be easily applied with the camel's-hair pencil, or a simple brush, and coat the face over with that, and repeat it as often as it breaks away. This is another method. And there is another that is easier, and my impression is, it is quite as good as any of them, and that is the use of collodion blackened with animal-black. The animal-black gives a very fine powder, and, mixed with the collodion while the collodion is soft, and then applied with a brush all over the face, it adheres very well. And this, it is believed, will act in a way to cause abortion of the pustules upon the part to which it is applied. It will not do to apply it to any considerable part of the body, but the face is most important, and it is applied only to this part.

In enumerating the lesions of small-pox I omitted to say to you, and it is omitted in almost all the books that I have read, that occasionally the small intestines are the seat not of an eruption proper, but of a pustular appearance, caused by a whitish fluid in the solitary glands, which enlarges these glands. I have seen them very numerous, so that almost the whole of the intestine was occupied by them, like bladders of purulent-looking matter standing out from the inner surface of the intestine. The Peyerian glands, too, are sometimes elevated to a certain extent.

Regarding the treatment of small-pox—the very best treatment is to prevent. "An ounce of prevention is worth a pound of cure," in this case. Small-pox, I told you, has been traced to China at a period of more than a thousand years before the commencement of our era, and a mode of diminishing the mortality from it was discovered in China—how soon after the first history of the disease, I do not know. That was by inoculation. If the virus of small-pox be introduced into the arm, or any part of the body of a well man, it will, in a period corresponding to the common period of incubation, produce a mild small-pox—so mild that the mortality is marked at one per cent. only, while that of small-pox, as I gave you yesterday, is thirty-seven per cent. This marked mildness, this great diminution of the danger from the disease, came to be enticing, and the practice became very general. It gradually worked its way into the western portions of Asia (?) and reached Constantinople in 1701 of our era. It took it two thousand years, probably, to get as far as Constantinople. Slow travelling. In 1701 it was introduced by two enthusiastic physicians, one an Italian practising in Constantinople, and after a good deal of effort to overcome the destiny doctrine of the Mohammedans, it came to be generally practised. Mr. Maitland, surgeon to the English Embassy in 1720, saw some of this practice, and Lady Mary Wortley Montague, who was the wife of the Ambassador, interested herself very much in it, and when she went home in 1722 she had her own daughter inoculated, and she went through a mild small-pox, and was afterward as much protected against the disease as if she had had it in the natural way. But the Yankees got a little ahead of them. The distinguished clergyman, Cotton Mather, had heard of this thing in Constantinople and became quite earnest about it. And a Doctor Boylston, in Boston, inoculated children in 1721, the year before it was practised in London. It came to be a prevailing practice in England and in this country. I do not know exactly in what manner it was performed or done in England, but in this country a house out of the way of travel as much as possible, that might perhaps be unoccupied, or be hired, was found by the selectmen of the town, and as many as wanted to enjoy small-pox went into that house as boarders, were inoculated and went through the whole disease joyously, and when time had passed sufficiently to authorize the belief that they would not spread the disease, they were let out of the house and returned to their friends. Indeed, Lady Mary Wortley Montague speaks of the Turks as having a sort of festivity when they went into an isolated place to be inoculated, and having a good time all the way through the disease.

The marked advantage of this kind of artificial small-pox you will fully appreciate when I state to you that the disease is so mild that only one in a hundred of the cases proves fatal. But there is this very marked objection to it, that it spreads the small-pox. The persons with the inoculated disease are just as dangerous to those who have not had the small-pox as the persons who have it in the natural way, and Sir Gilbert Blaine estimates that in his time small-pox was more prevalent than before inoculation was practised. It was a practice, then, that was very decidedly beneficial to the individual, but unfavorable to the community, and when Jenner proposed vaccination as a substitute for inoculation, and the effects of it were seen, it was seized upon with great eagerness by all people. Another name for this inoculation is variolation, and perhaps in the old times one term was used as frequently as the other. Of late we hardly ever hear of variolation, though occasionally we hear talk of inoculation.

Now, in reference to the protective powers of the disease to which cows are occasionally subjected, and Jenner's connection with it. In 1770 Jenner was a student of his profession in the office of a Mr. Ludlow, I think, at Sudbury. A young woman came in from the country to be prescribed for at the office, and there was some form of eruption—very likely one of the forms of erythema—which induced some of them to speak of small-pox. She said, "No, I cannot have small-pox, for I have had the cow-pox;" and inquiries were made in regard to it, and Jenner's mind was awakened for the first time to the possi-

bility of their being a preventive for small-pox. He made inquiries in that district, and found it to be a general opinion among dairymen that if a woman for then was the time of milkmaids, a time now long past—milked a cow that had this disease, and had a scratch upon her finger or a crack in her hand, and some of the material that was shut up in these pustules had made an entrance into her system in that way, then she had a mild disease, occupying but a few days for its continuance, and ever afterwards was protected from small-pox. In this figure you see the udder of a cow, and there are upon it seven pustules, which look exactly like small pox pustules. They have the depressed centre, and they have the areola about them, and if you were to see them upon a person, and they were as numerous as small pox pustules, I do not think you could distinguish between them. [

Jenner did not make any practical discovery beyond this general belief in that region of England, for several years afterward. It was 1780 before he gave his time to the study of the matter so as to make it practical. Then there was brought under his observation a disease of the horse called grease, and a disease of hogs called hog-pox. He got an idea that this hog-pox was the same as cow-pox, and he vaccinated one of his own children, Edward—not William, who is now living,—with it, and discovered that his boy was affected just as if he had been inoculated with small-pox. He therefore concluded that it was a modification of small-pox that affected the hogs; the grease in horses is regarded as having more affinity to the disease of the cow. He experimented as far as he could without coming to the person of man, up to the 14th of May, 1796. He then inoculated a boy whose name was James Phipps, from some matter that he took from the hand of Sarah Nelmes, who was a milkmaid, and had these pustules upon her hand. He took some of the matter of one of these pustules and inoculated this immortal James Phipps. The disease ran a course very similar to that which had followed from the accidental inoculation from the cow; this was on the 14th of June. On the first day of July Jenner procured the matter of small-pox and introduced it under the epidermis of this boy in several places. The boy was unharmed by it; no disease at all was produced, except a little local sore, which passed away as if it had been a scratch. This was the immortal experiment; soon vaccination became pretty common. It had to meet with some opposition, as does every novelty, but in ten years it came to be a practice. Jenner did not publish his observations in regard to it until 1798. The book was in that year sent to Dr. Waterhouse, who was professor of practice of medicine in the University of Harvard, and directly afterward he published, in a secular paper, an article under the name of "Something New in the Line of Medicine," and gave reports, extracted from the book of Jenner, of his discovery. As yet none of the vaccine matter had reached this country, but in 1801 a physician of Bath sent some to this same Dr. Waterhouse. The next was sent by an English physician to Dr. Valentine Seaman, in New York. Dr. Waterhouse distributed the matter sent him; he sent some of it to Mr. Thomas Jefferson, President of the United States. Mr. Jefferson became a believer in the practice, and he and his sons-in-law vaccinated two hundred persons of his own family and of his neighbors. He became quite interested in the study of the progress of the thing, and after one year he writes to Dr. Waterhouse in substance: "I have given much attention to the question of at what time this particular matter has arrived at maturity and is most effectual, and I have come to the conclusion that the best period for taking the matter from the pock is eight times twenty-four hours," that is, a little past the eighth day. Now we fix it at the seventh or eighth day. Dr Waterhouse diffused this practice among the physicians of Massachusetts, and they blundered. They took the matter at the wrong time, and some of them took the variolous matter and inoculated persons with it, and of course it spread small-pox, and they were worse off than before. Then Dr. Waterhouse writes to a correspondent that he had gained some credit by following the footsteps of Jenner, but he had lost his way, and he wanted new directions. This was communicated to Jenner, and Jenner wrote to him and sent him some new matter. Some was also sent to Dr Seaman, of New York. Dr. Jenner wrote to Dr Waterhouse his views in regard to the time when the vaccine matter should be taken from the arm. He says essentially—you will remember it was nineteen years after the war of the revolution: "Entertain what views you please in politics, but entertain but one opinion in regard to the taking of the matter of vaccination, it must be taken not after the eighth day." The seventh day, I think, is a favored day by the vaccinators of New York now; up to the eighth day it is good, but after the inflammation occurs in the areola it produces a purulent deposit in the part, and then it is not good; and yet the dry scab is used where nothing better can be obtained. Vaccination has become almost universally practised in civilized nations. There have been attempts to oppose it, which have amounted to very little. A pretty strong feeling was brought against it a few years ago when it was ascertained that syphilis had been inoculated with it. This was observed in France; and Ricord, who was authority on syphilis, was convinced that syphilitic matter had been introduced into the arm, I think, of about six persons. There are now numerous instances of such transmission recorded. I do not know of any other form of disease that is transmissible by the same agency. You would, of course, in choosing persons from whom to obtain the virus, select the healthiest, particularly those who had not inherited syphilis. The young children, from whom it is pretty uniformly taken, are not likely to receive syphilitic poison in any other way than by its being transmitted from parents.

The way in which the virus is obtained varies in different countries and with different physicians. The most common one here is, if the vaccination is not from arm to arm, to prepare quills. Take a goose-quill, scrape off all the scaly matter, all animal matter, and make it perfectly smooth; using both ends of each quill, you will have six points, as they are called, after having been loaded, from one quill. "Have you any points?" one physician will say to another; that is, have you any of those quills that are loaded with the vaccine matter. Then, on the seventh or eighth day, take a pock that is perfectly sound and just puncture the top of it, and turn this quill around on it until you see the matter on all its circumference. Then turn it end for end, and, making another little puncture into the pock, turn that in the same way. By that time the first end will have become dry, and you will turn that in the lymph matter again, and so with the other end. Then, when it is perfectly dry, you may cut the quill into two parts, and split each part in three and sharpen the ends not loaded and drive them into the lower end of a cork, putting three, four, or six into one cork,

and then pass the quills into a vial through the neck, and cork up the vial. You then keep it protected from the air—that is, from all the air except what is in the vial. It is best to use it within a few days. In very warm weather it is supposed to lose its virtue in a short time. It will not bear freezing. Then, when you come to perform the operation with the lancet, you shave the part which you select, which is usually at the point of insertion of the deltoid muscle on the left arm, pinch up the skin and make it prominent, so that you can readily apply your lancet to it. Shave off the hair and some of the epidermis; scratch it so lightly that there will exude just a drop of blood and no more. You can cross the scratches or not, as you please. You then turn the armed end of one of these points in the blood, and wash off the virus that has dried there. One point is commonly enough—that is, to produce one pustule. But the question arises here, whether one or several pustules should be produced in a vaccination. One pustule is, to a very considerable degrèe, protective, but more are regarded as desirable—at any rate by the Prussian surgeons and physicians. They sometimes make as many as nine insertions at one sitting. I have here some facts that relate to that. The mortality from small-pox after vaccination with one pustule was 7.73 per cent; the number of cases, upward of 2,000. With two vaccinations, that is, with two pustules, out of 14,043 persons the mortality was 4.07 per cent.; with three pustules, out of 580 persons the mortality was 1.75 per cent.; with four pustules, in 514 persons, it was only one-half of one per cent., or 0.55 per cent. So you observe that if small-pox occur after vaccination, it is less severe in those who have multiple vaccination—multiple pocks.

Multiple vaccination, introducing the matter at four or more points, does not seem to protect a person from an attack of small-pox any more than one; but it seems to have this advantage, to make it more sure that the small-pox, if it do occur, will be of a mild character.

There are persons who decry vaccination, and think that it shortens men's lives. I know of but one answer to that, or at any rate I do not know of any that is so conclusive, as that vaccination has been generally practised in civilized nations for seventy years; it took it about ten years to acquire general favor, since which time almost everybody has been vaccinated. And the history of the last seventy years gives us a longer duration of human life every succeeding ten years (a less number of deaths in proportion to the number living); and if everybody be vaccinated, and everybody's life is made shorter by vaccination, you observe that this is rather a singular commentary. Every ten years is marked as giving additional length to human life (diminishing the proportion of deaths every year to the number living). I know no other commentary that need be made in regard to it.

The accidents that attend vaccination are sometimes a little grave. The most common is the production of erysipelatous inflammation, and it is sometimes of a serious character. It does not occur, probably, in one of two or three hundred persons who are vaccinated; but you should know that it is one of the things that may chance to occur. I had a case in which erysipelas occurred in a child a few days after vaccination, but it occurred in the other arm, and started just about the point corresponding to the one I had chosen for vaccination in the left arm, so that that can hardly be charged upon the vaccination. Bad sores sometimes occur, but that, I think, is due to the material that is used for vaccination. For example, nearly forty years ago we sent to England for some virus from the cow direct. It was sent over on something like a microscopic slide, with a little cavity made in it, over which was sealed a glass cover, which made it air-tight. We used it at the Northern Dispensary, and every vaccination produced a very bad sore, so that we were obliged to abandon it.

The question occurs with regard to the vitality of the vaccine matter; whether that which was introduced into this city by Valentine Seaman, in 1802, and has been propagated from person to person every week since that time, has the same vitality, the same activity, that the original vaccine matter from the cow has. I may say, in regard to it, that I do not know any difference in the protective power. But the vaccine disease produced by the humanized vaccine virus is less severe; there are fewer constitutional symptoms. The pustule is the same. There is less of red lines running from the vesicle to the central portions of the body; less of swelling in the arm-pit. I have confidence, then, in the matter that has passed through four thousand human beings. That is about the number that would result from the computation of the weeks since Dr. Seaman's experiments. It is quite the habit now to use the virus from the cow. In my early professional days a great many attempts were made to vaccinate cows, and they were almost all failures. There was a Dr. McGown who devoted himself very much to it. The corporation furnished cows and heifers, and he attempted to establish the vaccine disease in them by retro-vaccination, as it is called—vaccinating backward. He very rarely succeeded. I suppose they are more successful now, because several persons advertise to furnish fresh matter from the cow on order, at any time. You will, of course, exercise your judgment in regard to it, but I think you will be satisfied with the old vaccine matter.

In regard to the amount of protection that vaccination gives, Dr. Jenner believed that it was absolute; that a person who was once vaccinated, the matter having taken effect, would never have small-pox, no matter what his exposure. Dr. Gregory later adopted the rule, that if a certain form of cicatrix should be formed, that it was evidence of protection to the person. The first order for revaccination in the Prussian army adopted Dr. Gregory's description of the vaccine cicatrix, and assumed that every soldier who had that mark was protected. But very soon they found that the protection was incomplete; that it was necessary to repeat the vaccination in every person, no matter what was the appearance of the cicatrix. Perhaps you would like to know what is the appearance of the cicatrix described by Dr. Gregory. It is a little depression in the skin, one-third of an inch in diameter, with a well-defined boundary, smooth, shining, and with no depressions upon it except two, three, or four little pin-holes at the bottom. Those pinholes indicate the seat of the sweat-glands. They are sacrificed in the pustule, and, being discharged with the scab, they leave the holes that they occupy in the skin. You will remember the sweat-glands are on the inner surface of the skin. Of some hundreds examined some years after vaccination, it was found, in Prussia, that sixty-five hundredths had this particular kind of cicatrix; that is, more than half had it. And they found, also, that the small-pox modified would occur in these persons about as often as in those who had imperfect marks. But in those who had no mark at all, the

exposure was a great deal more. In the early part of my professional life, one of my medical college classmates established a vaccine institution here, and advertised that he would pay five hundred dollars to any persons that he had vaccinated to his own satisfaction, if they took small-pox, or any modification of that disease. He adopted the plan of vaccinating and letting the vaccine run its course, and then to vaccinate again, and so on as long as he produced a pustule or vesicle, continuing to vaccinate until the introduction of the matter left nothing more than a scratch to heal up. And so long as he continued the business, he had not a call for the five hundred dollars. The course more generally adopted is to vaccinate and trust to it.

Then the question comes, whether revaccinating is necessary. In 1852 the State Medical Society made me a sort of committee to investigate that matter, and I ran over all the European records that I could find, and made of the abstracts quite a little volume, which, however, was never published, and on that based my report to the State Medical Society in 1852. I found that a very considerable number of those who had been vaccinated did not have small-pox for a long time—not during the time they had been under observation, and in some cases this was forty years and more; that a smaller proportion did have varioloid, or modified small-pox, and rarely one would have the fully developed small-pox. And in tracing the relations to each, it appeared to me that passing through the period of puberty had some influence in diminishing the protective power of the vaccination; that a considerably larger number had the modified small-pox after puberty than before. I have no doubt whatever in regard to the propriety of revaccination; that is, vaccinating a second time when small-pox is prevalent. We do not think to do it when it is not prevailing. For my own part, I believe I have been vaccinated six or seven times, and every time the vaccine produces a sore. I do not remember the effects of the first vaccination, for the matter was introduced into my arm when I was a child. But the sore produced by each succeeding vaccination has been very much like that that was produced thirty years after the first. But I have given it up now; I think I am protected by age.

Small-pox is a disease eminently of young persons. It will attack anybody; but of ten persons of from forty to fifty years of age, exposed in the same way as ten from one to ten years of age, there is a very great difference in the number of the two classes that will take the disease. Almost all exposed to it in early life will take it.

In regard to the period when the revaccination should take place, I think it would be safe to say at about sixteen or seventeen years of age. I do not know but that repeated vaccinations will give just as much protection against small-pox as having the disease will. There is a story of small-pox in the revolutionary army. A soldier died of the disease, and the surgeons selected two men well marked by small-pox, to bury the body, and one of them took it in performing this duty. Every now and then we hear of persons who have had small-pox having it a second time. It is the same thing with scarlet fever, typhoid fever, and typhus fever.

A word more with regard to the preservation of the virus. I told you about arming the goose-quills, cleaning off all the animal matter, and making them smooth and clean, and then arming them by the puncture of a pock or pustule; then splitting them up into six pieces when the two ends are armed. Another way is to seal up the virus in a capillary tube. In that way it can be preserved for almost any length of time, if the air have not access to it. Another mode to which resort is had sometimes, is to preserve the scab; then cut it in the middle with a sharp knife, scrape off a portion of the maternal and moisten it either with tepid water or the saliva of the person who is to be vaccinated. That can be introduced on the point of a lancet into the scratches that have been made. The best vaccination is from arm to arm. In some of the Italian cities men are seen driving cows through the street, offering vaccination from the cow.

Thirty years ago I found, in transparent lymph of the pock of vaccina, numerous minute microscopic bodies floating free. They, in the last few years, have been seen by other persons, who regard them as of vegetable origin, and as being the contagious element. Dr. Roberts says they are "particles of biophasm whatever that may be to which the lymph owes its active properties." According to Dr Beale the pock of small-pox contains similar particles.

To sum up, I think we may say that the greatest medical discovery, after that of the circulation of the blood, is vaccination, and although Jenner did not work hard to make the discovery, he deserves all the credit for it.

There is a form of disease that has been sometimes regarded as a modification of small-pox, occurring almost exclusively in children, and not very prevalent,—varicella. Its name, you observe, is derived from the supposed resemblance to variola, a literal translation would make it a little small-pox. But it appears that it has no connection with small-pox whatever. That is shown in two or three ways. First, persons who have been vaccinated, or persons who have small-pox, are just as liable to have varicella as those who have not; and second, varicella furnishes no protection against small-pox; and third, the history of the disease is very different, as you will see. It has no febrile invasion. The first thing that is seen is little papular swellings that grow pretty rapidly into vesicles and die away, and the scab dries up about the fourth day. This is not the history of the small-pox pustule, as you see. Then, again, while this first crop of vesicles is drying, other vesicles will appear in the same neighborhood. New vesicles will form and run about the same course, and it is not uncommon for a third crop to appear, so as to occupy about twelve days in the course of the whole disease. There is no particular part of the body that is exclusively liable to this eruption. It occurs, however, more frequently upon the chest than anywhere else. The number of vesicles may not be more than half a dozen, or there may be a dozen dozen. The child's health is very little affected by them. It seems to eat, sleep, and play about as well as if there were no disease upon it.

It is regarded as contagious, communicable from one person to another—from one child to another, at any rate—and is not traced to any special condition of the stomach.

As the child's health continues to be good during the whole prevalence of the disease, you have very little occasion for treatment. Indeed, mothers who are familiar with it do not send for the doctor. They know that it is mild in its character. Its mortality is nothing, unless some complication occur, and the treatment is nothing.

The difference between the pustule, or rather the particular manifestation of the disease, and that of small-pox, is, as I intimated by the phrase that I

used, that the chicken-pox (which is a translation of the word varicella), forms only a serous vesicle. It is only in particularly bad cases that there is any purulent matter at all; and that, as I told you, dries quickly. The scab falls off and leaves no cicatrix, unless purulent matter formed there.

(To be continued.)

Original Communications.

NERVOUS DISEASES CONNECTED WITH THE MALE GENITAL FUNCTION.

By GEORGE M. BEARD, A.M., M.D.,

NEW YORK.

(Continued from p. 556, Dec. 6, 1879.)

THE NATURAL HISTORY OF CONTINENCE—THE NERVOUS SYSTEM AS AFFECTED BY CASTRATION—PSYCHOLOGY OF OLD-MAIDISM AND BACHELORISM—SUDDEN CHANGES IN SEXUAL HABITS—FROM EXCESS TO ABSTINENCE, AND VICE VERSA—LATE MARRIAGES—ILLUSTRATIVE CASES.

IV.

The Natural History of Continence.—What is the effect on the nervous system of a life of absolute continence in the adult male? This is one of the hardest and complex of all the many difficult questions connected with this subject. The difficulty in answering this question is of a threefold character: First, in getting at the facts—that is, the habits of individuals or of classes in respect to continence; secondly, the difficulty in reasoning rightly from the facts after they are ascertained; and thirdly, the difficulty in studying the peculiarities of individuals; of idiosyncrasies, especially as they are developed under high civilization.

Any wholesale, absolute, briefly and dogmatically stated answer to this question would probably be erroneous. To say that continence in the adult male is entirely consistent with perfect health to the nervous system in old cases, or to say, on the other hand, that absolute continence is impossible for the adult male in any case, would be to say what is not sustained by facts, nor in harmony with the principles of deductive reasoning. My own studies on this subject, which include a careful and repeated inquiry into the habits of patients, conversation with very many physicians in regard to all the points involved, and an inquiry into the habits of savage, barbarous, and semi-civilized races, so far as is practicable, through all authorities on sociology,* bring me to these general conclusions:

1. Absolute continence is possible for an adult male, and consistent with health and longevity, with the relief that comes from occasional involuntary emissions, provided that the person is originally strong in his nervous system.

Involuntary emissions, as a means of getting rid of the secretion of the seminal fluid, are certainly unnatural—in the ordinary sense of the term unnatural—and when acting on a sensitive organization, are likely to do harm to the nervous system; the emissions will increase in frequency and will aggravate themselves, and induce a pathological state with a large number of symptoms. On the other hand, in a stronger and grosser temperament, such results may not follow; there may be no weakening, either local or general, that is perceptible, and the effects of continence may be of a *negative* character. Those who live in this way, or who know those that do live in this way, may infer that all persons could or might follow their example; but such reasoning would be deceptive and incorrect in theory and out of accord with the facts of observation.

2. Individuals of nervous and sensitive organizations find it usually difficult, and oftentimes impossible, to lead an absolutely continent life without suffering from nervous symptoms, which, in some cases, are of a serious and crippling character. The lower one is in the stage of evolution, the easier it is to be continent; the higher one is in the stage of evolution, the more difficult it is, other conditions being the same, to be absolutely continent without being thereby perceptibly affected. This general law sweeps through all the functions; delicacy and complexity of organization narrow the margin of endurance, so that both excess in indulgence and excess in abstinence become injurious; entirely abstaining or over-yielding, more quickly excite nervous symptoms than in the coarse and hard and phlegmatic temperament. The savage can go for days without eating, and when he eats can gorge himself, with but slight and temporary harm; the civilized man must have his three meals a day, and the neurasthenic patient sometimes requires to be fed every few hours, or even every few moments. In this brain-working, active, and nervous city, there are thousands who, if they abstain from a single meal, or even delay a meal much beyond the usual hour, are rendered irritable and fretful, and are liable to be attacked with headache, and various symptoms and are made incapable of effective work. The nervous man is dependent upon his food, upon the regular supply of it, and the supply must be frequent and regular; whereas, in the savage life, among all races of savages in all countries, irregularity of eating is the habit. To eat enormously or to go days without eating, are borne by them equally well. The negroes of the South, whose habits I have recently studied specially, in relation to an allied subject*—the causation of insanity and neurasthenia and other diseases of the nervous system—can, and will, for very slight compensation, row one of their heavy boats with awkward, ugly oars, all day, into and through the night, without anything to eat. If something is offered to them, they are glad to get it, but they can get along very well without it; and when, on getting something, they overeat, are very little harmed.

In this feature the reproductive system follows the same law as the digestive system; the more complex and sensitive and impressible the organization, the more likely are we to suffer from unnatural and prolonged abstinence. It follows, therefore, that there is no general, sweeping, universal cast-iron law upon this subject, fitting to all nations and races and conditions and temperaments and idiosyncrasies; in this, as in everything connected with the nervous system, each case is its own special study. There are individuals who need marriage, who cannot be well without a certain degree of normal sexual activity; and there are individuals who can bear—without, at least, serious or positive effect on the nervous system—prolonged sexual starvation. One

* The list of authorities can be found in my works on Stimulants and Narcotics, and Eating and Drinking. (Putnams.)

* In my paper on The Problems of Insanity, the habits of these negroes are more fully discussed.

reason, undoubtedly, why the coarser and phlegmatic temperaments can bear abstinence, even when their sexual power is very great, is that they have little imagination and their functions are not thereby so much excited, and are not so likely to become abnormally sensitive.

There is no question that true spermatorrhœa may result from prolonged continence in a nervously sensitive temperament, even when there is no self-abuse. This fact is, I believe, not understood, but it is as veritable as any fact of this kind can be. For such persons, who are more numerous in society than we may suppose, continence is impossible, except at the expense of the nervous system. Individuals of this temperament, also, are much more likely to be injuriously affected by slight excess than others; their margin of indulgence or non-indulgence is very narrow; whereas, the coarser and harder organizations bear, without immediate or traceable harm to the nervous system, either protracted abstinence or a very great indulgence.

The indiscriminate and off-hand recommendation, marriage, for cases of nervous disease, is as unscientific as the indiscriminate recommendation of any other hygienic or therapeutic measures. I see many of the best results of treatment in cases who do not get married, and who live a continent life; I also see cases who are decidedly better after marriage, to whom this, indeed, becomes the proper supplement to other medical and hygienic treatment; I also see cases, as all do, where excess in the marriage state—that is relative excess for the individual, by which I mean indulgence which is too much for that individual—brings on, in full force and in severe form, all the symptoms of sexual neurasthenia that have been supposed to be the exclusive property of young and unmarried men; morbid fears in immense number and variety, profound exhaustion, insomnia, dyspepsia, tremors, head and back pain, irritable eyes and the like.

3. Absolute and prolonged and permanent continence apparently reacts unfavorably on the mind, depriving it of some of its highest possibilities. The nervous system may be sound and free from perturbation, and at the same time be far below its possibilities of activity and fruitfulness. A person may be well and remain well all his life, without ever reaching the condition where the mind is at its highest stage of activity and productiveness. It is a part of the reactions and interactions of the different organs on each other, that the exercise of the sexual function, like the exercise of the digestive function, stimulates and sustains the exercise of the intellect; the higher nature is reinforced by the lower. The psychology of old-maidism and bachelorism is yet to be written, but an exhaustive and scientific essay on that subject would be an important and most valuable and very much-needed addition to the literature of the nervous system. The distinctive mental characteristics of persistent old-maids and bachelors—qualities which they would not have had if married—represent, when psychologically analyzed, not gain, but sacrifice. While a great quantity of excellent and useful work has been done and is being done, both by men and women whose reproductive natures have been little or not at all exercised, there is yet no evidence that any of the best intellectual work of the world in any department has been done by persons of this class. All the facts that can be obtained on so delicate and inaccessible a subject as this show that the most intellectual natures, in every department of intellectual activity, have not starved, but, on the other hand, very freely exercised the reproductive functions. Enough, certainly, is known on this subject, to make it clear that the free activity of this function is consistent with the supreme developments of the human mind. The very common belief that the mind gains by sexual abstinence is unfounded and is unscientific, as was the equally common belief that great thinkers were small eaters. Biography shows that the geniuses of the world have been prone rather to over indulgence, both of the digestive and reproductive system. Out of the vast mass of valuable work that has been done and is being done by those who, we have reason to believe, are continent, there is little record of any considerable amount of creative work which has directly changed, or is likely to change, the destinies of mankind.

The effects of castration on horses, bulls, and rams, is to render them docile, submissive, manageable,* but these desirable and indispensable characteristics are obtained at the price of the higher manifestations of brain-force in these animals; their ferocity, their ugliness and violence, are psychologically greater qualities, and indicate a better activity of the higher nerve-centres than those qualities that are needful in domestication.

With this decrease of mental capacity there is an increase of fat; the animal becomes larger and more unwieldy; it has good health and may live long, but the higher manifestations of force are no longer possible.

Eunuchs behave like castrated animals; the voice changes, the manhood declines, and there is an increase of fat.

Sexual starvation in man, at least, has, in a far less degree, the effects of castration, depriving the intellect of its supreme capabilities, while not interfering with the mild and routine operation of the brain or body, nor with the physical health. Priests are, with many exceptions, notoriously fat, and the married of both sexes very often, if not usually, begin to grow fat or to increase in weight between thirty-five and forty-five—just the time when there is observed, on the average, the beginning of a slight diminution of sexual power, and, in woman, the change of life takes place.

In my work on "The Relation of Age to Work," published some years ago, it was demonstrated that about all the original work of the world, in all departments of human activity, was done and had been done between the twenty fifth and forty-fifth year; original creative work is the best and indeed the only usable test of brain-force; we are most productive when we are most reproductive.

Mr. Lecky, in his "History of Morals"—a work that should be read and re-read by students of the nervous system—has the following passage to which especial attention is called: "But, in the eyes both of the philanthropist and of the philosopher, the greatest of all results to be expected in this, or, perhaps any other field, are, I conceive, to be looked for in the study of the relations between our physical and our moral natures. He who raises moral pathology to a science, expanding, systematizing, and applying many fragmentary observations that have already been made, will probably take a place among the master intellects of mankind. The fastings and bleedings of the medieval monk; the medicines for allaying or stimulating the sensual passions; the treatment of nervous diseases; the moral influences of insanity and of cas-

* See Dr. Lindsay's Mind in the Lower Animals, vol. ii., p. 382.

tration; the researches of phrenology; the moral changes that accompany the successive stages of physical developments; the instances of diseases which have altered, sometimes permanently, the whole complexion of the character, and have acted through the character upon all the intellectual judgment, are examples of the kind of facts with which such a science would deal."

4. Sudden and violent changes in sexual habits, especially in mature years, react injuriously and sometimes very seriously on the nervous system. Changes of this kind are of a three-fold character:

(1.) From masturbation to absolute continence.

(2.) From very long continence to excess, as in the case of those who marry in mature years—late in life.

(3.) A change from excess, or, at least, from regular activity to absolute continence, as in the case of those who are suddenly bereft of a companion.

All these three changes in a nervous constitution may produce important and complex and distressing symptoms of the nervous system. Those who have followed the cases that have been detailed in this series of papers can scarcely fail to have observed that, in the instances of young men who are afflicted with sexual neurasthenia, there is always a sudden stoppage of the habit of masturbating, followed by continence. Young men are very rarely affected with any of the symptoms referred to here, while they keep up the habit, unless the habit is carried to very great excess indeed; it is the sudden leaving off, caused usually by reading some books of charlatans, that brings on the unpleasant symptoms that drive them in despair to the doctor. There are those among the German writers, and others also, that claim that these young men always lie; that they are still keeping up the habit when they consult us. This is an inference which is not justified by the facts, and is certainly not correct for many of the cases; and in closely studying the histories of these young men, it is found almost always, that while they maintained the habit, even though for some years, they were not distressed particularly—were, indeed, in comparative health—but within a few months or years after stopping, then come on the morbid fears, the hypochondrias, the headaches, the insomnia, the fear of society, the profound exhaustion, etc.

In looking over lists of cases that I have treated, some time since, I became impressed with the fact that very many of those who are in middle life—that is, between forty and fifty—dated their symptoms from a few months to a year or more after the loss of a wife, and that after such loss they remained continent. In a strong, phlegmatic constitution, such a change of sexual habits might not be noticed; but in these nervous, sensitive temperaments, neurasthenic symptoms appear—in some cases, positive cerebral congestion or spinal congestion. I have also noticed, in quite a number of cases, that symptoms of melancholia and mental depression, cerebral congestion and neurasthenia, in all its phases, followed within a few weeks or months, or at most within two or three years, after marriage in middle life, of persons who had been previously continent. The number of cases of this kind illustrating both these forms of change—from continence to excess and excess to continence, in middle life—is so great that it cannot be a coincidence, and I am convinced that it is an operation of natural law.

The following cases illustrate this effect of the sudden changes in sexual habits, and make clear the points I wish to bring out better than any amount of elaborate statement.

Case XXIV.—A gentleman between thirty and forty years of age, married at twenty-three. At that time he was perfectly well, and for several years afterward, except an occasional attack of sick headache. He was of strong build and appearance, and of good inheritance. One year before consulting me he had lost his wife. Since that time he had acquired the habit of opium-taking, so severe had been his attacks of insomnia and of mental depression. He had travelled in Europe, where his sick headaches left him; but, as with the majority of such cases who go abroad for health, he had travelled so far and worked so hard that he came back worse, on the whole, than when he went. He told me that he had "shed barrels of tears," and that he had set the time for his death. He feared that he was going insane.

Evidences of cerebral congestion were very marked. Examination of the urine found a few spermatozoa and spermatic globules.

A case like the above, if taken by itself alone, would prove nothing; but it is presented here as a type of very many. The patient, I should say, positively stated that he had been continent after the loss of his wife, and while in the married state he had been unusually indulgent.

Case XXV.—A gentleman under thirty years of age, married at the age of twenty-five. In less than a year his wife died. Then came on symptoms of seminal emissions, though not especially frequent, considerable insomnia, a burning sensation in the region of the prostate and prostatic urethra. The urethra, on examination, was found exceedingly sensitive—in a condition of considerable hyperæsthesia, indeed; there was much pain in the lumbar spine.

It should be observed here, that at the time of marriage the patient was not specially strong; he had abused himself in early life but had stopped suddenly three or four years before marriage, and thus had become weakened through frequent emissions. Examination found a trace only of spermatozoa. This patient desired to get married again, which he was advised to do, after having first improved the local and general condition.

Now, in the above case, these two facts are clear: First, that during the marriage state he was in comparatively good health and had no symptoms about which he thought of consulting any one; secondly, after the death of the wife he was continent, and coincidently with his continence came on a number of symptoms—not so many, indeed, as we often see in these cases; still, of a positive character—indicating, in a mild form, sexual neurasthenia. The fatigue and labor of attending on a sick companion, and the mental anxiety following their loss, come in, we must all allow, to complicate these cases; but these mental influences and this physical exhaustion combined, would not produce, or would not be likely to produce, this special phase of neurasthenia we have described. Sexual neurasthenia is one of the sub-varieties of general neurasthenia, and, as I hope in time to show, has a group of general and local symptoms by which it may usually be diagnosticated.

Case XXVI.—A gentleman between forty and fifty years of age, only married a few years before he saw me. Within a few weeks after marriage was attacked with melancholia, which became very profound. I compelled him to give up his occupation. The patient wept so easily that it was impossible for him to state his case at first, until he became much calmed. There was much pain in the vertex and the genital centre of the lumbar region and the spine. Considerably before puberty he had contracted the habit of self-

abuse, which he had kept up for some time, and it is not impossible that this early excesse of the parts had imprinted a sensitiveness which may have become a permanent possession with him; but in spite of this he had been, with some exceptions, very well in his nervous system, up to the date of his marriage; indeed, he regarded himself at that time as a healthy man.

In the above case the effects followed so soon after the cause that there is little chance for error. A few weeks passed before the symptoms of brain-exhaustion came upon him in full force. All the more noteworthy was this case from the fact that the patient was a man of great strength of mind, great energy, force and will, and not disposed naturally to yield to fanciful or trifling symptoms.

CASE XXVII.—The following case illustrates both the appearance of nerve-symptoms after a change from indulgence to continence, and also the improvement on recurring to original habits:

A clergyman was brought to me by his physician with symptoms of pain in his head, in the back of the neck, and with attacks of insomnia and other evidences of cerebral congestion and exhaustion. After preaching on Sunday, he would be prostrated on the second day after—on Tuesday—in the morning. There were no evidences of myelasthenia or spinal exhaustion. He was very strong and muscular, could walk long distances. Four years before consulting me he had lost his wife. He was considerably exhausted by attending upon her. Shortly after that he found that symptoms came upon him which made it necessary for him to be very careful, which he had not been before. Then came the symptoms for which he was referred to me. He had married again and his symptoms had improved, and he was on the mend at the time that I saw him. When I last heard from him he was doing well.

The following case is more remarkable and instructive than any of the preceding, as illustrating the propositions contained in this paper:

CASE XXVIII.—A physician, at forty-three years of age, who had married five years before, came to me with a very long list of neurasthenic symptoms, which had compelled him, temporarily, to give up his profession, and which had driven him to desperation. The first element of difficulty in the diagnosis was, that he did not have, apparently, the nervous diathesis which a majority of these cases have; he was a strong, large man, and not especially nervous in the ordinary sense of that term; he would not have been selected as a person of a neurotic temperament. In my work on neurasthenia, I have indicated the means of making the differential diagnosis between functional nerve-symptoms, represented in neurasthenia and organic troubles, such as progressive muscular atrophy, locomotor ataxia, and the like. When this patient was tried by three of those tests it was clearly a case of neurasthenia, but by the fourth test there was doubt. His symptoms were very severe, and some of them were unusual, and one, at least, was unprecedented in its character and severity. The most remarkable symptom was a feeling as if drops of water were falling upon him all over his body, from the top of his head to his feet. Irritations of the urethra, especially near the meatus, will sometimes produce a sensation similar to this along the thigh; but I had never before seen a case where, in any form of neurasthenia, the patient felt as though he were in a mild rain-storm. The patient had twitching of the muscles all over him—that is, fibrillary contractions, so-called—a symptom which is laid down in all the books as indicating muscular atrophy. He had a diffuse feeling of coldness sometimes in different parts of the body. Insomnia was a marked symptom, and mental depression was so severe that he might almost be called melancholic. Fear of society—anthropophobia—was so profound in his case, that while he stated his symptoms to me he found it impossible to look me in the face, but was obliged to turn his eyes in all directions away from me. When I forced his head toward me, so that his eyes were upon me, I found it impossible for him to talk intelligently and satisfactorily. He stated that he had found this same difficulty with patients; that he frequently could not see patients; he was obliged to dismiss them, or have them go away without seeing him. A feeling of profound exhaustion would come upon him, when he would find it difficult to use either mind or body; he was also troubled with a feeling of formication or crawling of the skin; he had also sweating of the hands—palmar hyperdrosis—such as we often see in young men with sexual neurasthenia. Another very interesting symptom in his case was constant gaping as he talked. Critics of my writings on neurasthenia, and noticeably my friend, Dr Althaus, of London, have made much sport of this symptom; but it is, to those who study these cases and do not neglect them or laugh at them, just as truly, in some instances, one of the symptoms of neurasthenia, and also one of the most interesting symptoms of it, as patting is a symptom of small-pox. It appears to be a reflex phenomenon exerted in some cases by the effort of talking. It is not an evidence of fatigue as such, for the patient will gape in the morning just as well as at any time. In this case I never had any conversation with the patient when he did not gape. Another symptom of neurasthenia was *explosions* in the head—apparently in the back part of the head. A homœopathic practitioner, Dr. Searles, has lately published a number of cases where explosions of this kind occurred, and he has described these under the title of "A New Form of Nervous Disease." Rightly analyzed, these explosions in the brain are not masked epilepsy, nor are they epileptoid in any sense; they are merely symptoms of the neurasthenic state, particularly when the brain and upper portion of the cord are attacked. In this particular case these explosions occurred while falling to sleep. There are very many cases where the jerkings of the muscles, often throwing the body apparently up from the bed, occur, and these symptoms of explosions and jerkings may also appear at other times. Other symptoms in the case of this patient were, lack of mental control, neurasthenic voice—which was most noteworthy from the fact that he was a strong, vigorous-looking man—and attacks of frequent micturition. For two months he had had an attack of inebriety in a mild form, and was, to use his own language, "crazy for whiskey." From this attack he had recovered. Inebriety, as I have frequently urged, is one of the very many symptoms of the neurasthenic state. Neurasthenia, both of the general form and of the sexual variety, is one of the most frequent of the many exciting causes of the inebriety, a nervous disease that may attack those who have never been intemperate. As usual, in cases of this kind, this patient was especially nervous and debilitated in the hot weather of July and August.

Few patients that consult me are so difficult to diagnosticate, especially in regard to causation, as the above case. There seemed to be at first no reason why the patient should have these symptoms; they had come on apparently without any

traceable cause. He had had syphilis fifteen years before, and syphilis attacking the nervous system might give rise to many of these symptoms, but it would not give rise to the whole group. Malaria, we were obliged to exclude. I was compelled to see the patient two or three times before I got all his history in detail, or got a complete record of his symptoms. He had his urine examined by Dr. Mittendorf, and found absolute and clear proof of spermatorrhœa and oxaluria. On undertaking to pass a sound into the urethra, I found it was absolutely impossible to do so; he could not allow even a small sound to enter half an inch.

The whole history of the above case, taken together, made clear to me, beyond all question whatever, the diagnosis of sexual neurasthenia, caused mainly by a sudden change in sexual habits, a relative excess following long continence, and the hygiene and treatment were ordered accordingly. This patient, being a medical man, had read immensely on the subject, and the more he read, the more distressed he became. Pathophobia, or fear of disease, was one of the symptoms; he had made a diagnosis of liver disease, of heart disease, of locomotor ataxia, and of "softening of the brain," and was surprised, as well as relieved, when I told him that he could not have any one of those conditions. He very rapidly improved under treatment.

This case is very instructive, as showing that physicians, when they are attacked with neurasthenia of any kind, whether general or sexual, suffer more severely than any other class. They read; they read good books; they read German authorities; and the conclusion which they are obliged to draw from their reading is, that the symptoms indicate severe incurable organic disease of the brain or spinal cord, for the best authorities in the world tell them so, and it is not to be wondered that they become alarmed. One of the important medical wants of the age is the diffusion, through all the literature that the profession consult, of the points in the differential diagnosis of functional and organic disease. I have tried, as best I could, to make these points clear in other writings on "Nervous Exhaustion," and in this series of papers also; but, no matter how much may be written upon it, it must be many years before there shall be a thorough understanding on the subject in all ranks of the profession everywhere, and before our text-books on nervous diseases will have corrected the errors which they teach on this important theme.

A CASE OF
PERFORATING GUNSHOT WOUND OF THE CHEST—RECOVERY.

By RICHARD O. COWLING, A.M., M.D.,

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X., a lad eighteen years old, had suffered for many years with dyspepsia. He had been under the care of a homœopathic physician without relief. All food disagreed with him, milk least of all, though the digestion of this was painful, and he could take it by the spoonful only. In the summer of 1877 he had, in search of health, gone on a voyage to South America, and had received some benefit thereby, eating, for awhile, the ship's fare; but soon after his return he relapsed into his former condition. In spite of his meagre diet, his body was not poorly nourished. He weighed a hundred and eight pounds; could chop wood and undergo ordinary fatigue in hunting, with which exercises he strove to regain his health. He was of precocious mind, read continually and at late hours generally, with the effect of aggravating his dyspepsia. The ingestion of food, reduced again to milk alone, became more and more painful, and, in a fit of desperation, he determined upon suicide.

On December 29, 1877, he shot himself in the following manner: placing the muzzle of a fowling-piece against his naked breast, below the left nipple, and resting the butt on a low bench in front of him, he leaned forward and pulled the trigger. The gun used was twenty-eight inches in the barrel and of No. 14 bore. It was a "muzzle-loader," and was charged with three drams of powder and an ounce and a quarter of No. 8 shot, having been loaded thus heavily "for a hawk." The wadding was of paper.

He was alone in a room detached from the house in which his family resided when he committed the act. He does not remember hearing any report, and felt no pain, but rather as if he had been shoved backward with some force. He afterward walked to the door, called a servant who was passing, and returning, fell upon a bed and saw blood streaming from his breast. He never lost his consciousness. When the members of his family reached him, he recognized them and their distress, and remembers the summons for a doctor.

Dr. Chenowith, of the neighborhood, was the first to arrive, within an hour. Seeing the magnitude and situation of the wound, he considered, of course, that death was impending. Excessive pain had in the meantime come on, and the patient asked for chloroform. This was given him, and morphine, ¼ grain, was injected into his arm. The hemorrhage had ceased when Dr. C. arrived. No blood had been spat, nor did any come through the mouth during the progress of the case.

A messenger was dispatched to the city (the family resided in the country six miles away) for me, and not finding me, Dr. Kelly drove out. He found his condition unchanged. Pain was the prominent symptom, and this seemed to be increased by the air rushing into the wound. With the hope of giving some relief, the anterior opening was sealed with rubber plaster, and the morphine was continued.

I saw the patient first on the morning of December 30th, nineteen hours after the shooting. He was lying in the position he had first taken, half-way reclining upon the bed, his feet resting outside upon a chair. He was pulseless at the wrists and at the brachials. His temperature was 96½°. His voice was clear, and he complained of excessive pain. More morphine was given, and his clothes, which, with the bed-coverings, were saturated with blood, having been removed, we put a clean shirt upon him and laid him upon a fresh lounge. He bore the handling well, and expressed some comfort at his new position. No hemorrhage was started by the movement.

The anterior opening of the wound was concealed by the plaster. Through the posterior one the air rushed in and out with a snoring sound. The noise worried the patient much and depressed him. To prevent this, we agreed to seal the posterior wound also, until the discharges should commence—if, indeed, the patient should survive so long. The sealing of the wound did give temporary relief. Besides the plaster it was agreed that large linseed poultices should be kept to the wounded side embracing both openings; hypodermic morphine be given as re-

quired, and the patient be fed with milk at short and regular intervals. He could take none of the ordinary stimulants and we gave him tea as a substitute.

Dr. D. W. Yandell saw the patient with us on the afternoon of December 30th. Dr. Kelly continued in the case a few days. Afterward it fell to Dr. Chenowith and myself. I remained with the patient thirteen consecutive nights.

On the third day the plasters were removed, and I had my first view of the anterior wound. It was about an inch and a quarter in diameter, slightly oval. The top of it was two inches below the left nipple. The inner edge on a perpendicular line dropped from the nipple. The part for two inches or more around were badly burned. The discharge had passed in below the fifth rib, cutting the sixth in two. The posterior opening of the wound was apparently an inch below and to the outside of a line passing directly from the front aperture to the back. It was not so large as this by fully one fourth. The shot had passed clear through the chest, and, as I subsequently discovered, had lodged in the ceiling, covering an area of about eighteen inches in diameter. The relative position and size of the openings at first did not seem to point to the anterior one being the wound of entrance, as the accompanying burn indicated—and as the patient subsequently, when he was able to answer our questions, informed us. I found, however, by experiment (with an empty gun), that in leaning over the piece in the manner in which the shooting had been done, the course of the charge would apparently be in the line taken in the case in hand. I found, especially, that in leaning over to reach the trigger, the body was necessarily twisted, and the muzzle was directed outward.

I resume the history of the case. On Dec. 31st, there was still no pulse. The temperature was 97½°. On January 1st, seventy-two hours after the shooting, the pulse became perceptible, though then extremely faint. The temperature was 98½°. The discharge of pus began on this day, and the plasters were removed. On January 2d, the pulse could be counted 180; temperature, 99½°. On January 3d, pulse, 160; temperature, 99°. The temperature remained at this point during the progress of the case until the third week, when it became normal—never having mounted to 100°. The pulse improved in number and quality of the beats until on the tenth day it was at 125, ranging up and down ten beats or so during the day. At two weeks it was under a hundred. The discharges which commenced on the third day soon became excessive, necessitating the removal of the poultices every few hours. Their fetor also was intense, in spite of every disinfection, and caused one of the chief complaints of the patient.

The wound enlarged greatly during the progress of the suppuration, and at the end of a fortnight was seemingly of sufficient size for the patient to have been easily spitted through it upon a broom-handle. Beyond the chest-walls it was excavated in all directions. The ends of the cut ribs, before and behind, could also be seen, and the patient complained greatly of their movement, "as if they were being thrust into his flesh." With the beginning of the third week a marked change took place in the wound. The fetor suddenly left, and became less and less profuse. Granulations sprung up so rapidly that by the twenty-first day the anterior opening was bridged entirely across, and by the thirtieth it had fairly cicatrized. At the same time, the granulations around the posterior opening, which had nearly closed, began to pout, and a spicula of bone was discharged. Two or three weeks subsequently I extracted two other small and sharp splinters, after which no other foreign bodies came or were taken away.

A curious change took place in the patient's appetite during the progress of the case. The milk, which at first was somewhat forced upon him, was called for after the first week, and taken in continually greater quantities. Soup was then added to his diet, and gradually eggs, porridge, oysters, fish, game, mutton and beef were placed upon his bill of fare by his own direction. One day near the end of the third week it was announced to us that his breakfast had consisted of coffee, six buckwheat cakes and a "porter-house" steak—provender even the taste of which he had gone for years without knowing.

I was led to believe from this improvement in his digestive powers that his dyspepsia would not return; that his digestive organs, which had perhaps lost much of their powers through long suspension of their functions, having regained them under the stimulus of the drain which was now producing an appetite with the necessity for food, would continue to hold on to them after recovery from the wound. That ability to eat and digest would come by eating and digesting, just as sometimes the lame learn to walk by walking. The event proved the truth of this prognosis in part—another factor interfering with its whole accomplishment.

During the first three weeks of the patient's confinement he had been harassed with a continual cough, caused by the exposure of the lung to the air. It ceased when the wounds were closed with granulations. His forced position, too, upon his back, was excessively annoying, and the frequent dressings severely taxed his endurance, though they were done from first to last with the exquisite tenderness of a devoted mother. With annoyance and discomfort severe pain continued a prominent symptom for a number of weeks, and the patient had generally a third of a grain of morphine by hypodermic injection every six or eight hours.

On Feb. 3d he was removed from the room in which he was confined to the house in which the family resided. On this day he stood upon his feet for the first time, and a few days later could leave his bed for a few hours at a time. He continued to improve in strength—and kept his appetite for several weeks. The morphine habit had grown upon him, however, and he could not or would not leave off the injections. Apparently as a result of this, his former nervousness returned in a degree—he had frequent sick stomach, with occasional vomiting—and his loathing for food in a measure returned. I made an attempt to combat the effects of the morphine, but my surgical services being at an end, the patient preferred to return to his old love for medical treatment, and so I saw him no more. He was ordered to the seaside, as I learned, and after an absence of several months sent me a photograph of himself which represents quite a healthful-looking youth. After two years, as I have been informed, his general condition, though far from being of the best, is a great improvement upon his former state.

The vast clinic of the civil war presented so many examples of gunshot wounds of the chest received at every point upon its area—and from missiles of such varied description—and all questions connected with their prognosis and treatment have been so well discussed in the surgical records of the army, that it would be vain in a double sense to offer any such remarks from the text of the single occurrence which is here presented. I simply wished to put upon

record a case which I think will be found curious even among the curious, for while the chest has been perforated time and again with almost every missile known to war-killing, it has not often happened that an ounce and a quarter of bird-shot have passed through the lung so near the heart, to the apparent improvement in the condition of their owner. If I were asked what particular factor I thought tended most to the recovery of the boy in the case narrated, I would say that it was the perfect drainage which the direction of the wound made possible; but then we know that during the war there were earnest and able advocates of a position which destroyed drainage by sealing the openings of the wound. There is one point, however, upon which I think every surgeon, as the result of his own experience and a study of his records will agree—that in no class of surgical injuries does each case determine its own laws more than in gunshot wounds of the chest.

LOUISVILLE, KY.

ON THE RELATIONS OF NERVE AND MUSCLE.

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(Continued from page 484.)

IN continuation of this subject, let us take our leading physiologists at their word, and admit the inherent endowment of muscular tissue with the property of contractility, "with all that the term implies." Their evidence (already quoted) is none the less valuable or reliable, because given—like the favorable admissions of an adverse witness—in support of a different *plaidoyer*.

Since muscle has been shown to be "so exquisitely organized for the *development* of its proper force"—contractility—and since a nervous "stimulus" is not needed to do for muscle what it can do of itself; nay, more, since the foregoing facts show that nervous agency is a hinderance to muscular contraction, and that the latter occurs to the best advantage in proportion as the influence of the nervous centres is withdrawn, the conclusion is obvious that the function of the motor nerves is to *restrain* muscular contractile power, and that a *release* of this "proper force" of the muscle occurs when the will, acting through nervous agency, directs co-ordinated muscular movements.

This is not a new doctrine. It was suggested nearly fifty years ago by Dr. West, an English physician, in an essay then published. Sir Charles Bell gave countenance to Dr. West's views, in a lecture at the Royal College of Surgeons, London, in which he said "that *relaxation* might be the act, and not contraction; and that physiologists in studying the subject had too much neglected the mode by which relaxation was effected." (See Dr. C. B. Radcliffe's "Lecture on Epilepsy," Appendix, p. 277.)

Before proceeding to point out how fully this theory explains the conditions noted in the previous article, in which the theory of the day proves a failure, and how plainly consistent it is with other physiological and pathological facts, it seems desirable to set at rest, at the outset, what may be regarded as an objection of importance.

AN OBJECTION ANSWERED.

It will be asked: If the function of motor nerves be to restrain muscular contraction, why do not the muscles at once contract when their motor nerves are cut, by accident or design? In reply it may be stated that, in the case of involuntary muscular fibre, it really appears that muscles of this class *do* contract when their controlling nerves are cut or paralyzed. Take the authenticated experiments in which the pneumogastric nerves of the rabbit have been cut "below the pharyngeal and above the œsophageal plexus," as detailed by leading physiologists. Here the pharyngeal and upper parts of the œsophageal muscles are still under nervous restraint and food is passed downward. When the bolus reaches the lower œsophageal region, of which the motor nervous supply has been severed, it is "suddenly rejected by a peculiar kind of regurgitation." (Dr. Dalton, "Phys.," p. 473.)

Does this result imply *paralysis* of the muscular fibres of the gullet, as has been asserted by our physiologists? Far from it; the ejection of the bolus is the result of contraction of the muscular coats of that tube, which contraction is especially active in that part of the organ from which nervous restraint has been withdrawn by section of its nerves. The lower end of the œsophagus is not a mere flaccid tube in a state of "paralysis," otherwise the bolus could not be first delayed and then ejected in the manner stated. Indeed, Dr. M. Hall found that "the simple contractility of the muscular fibre (of the œsophagus) occasions a distinct peristaltic movement along the tube *after its nerves have been divided*, causing it to discharge its contents when cut across." (Dr. Carpenter's "Phys.," 5th Amer. ed., p. 404.)

Nor does the evidence point to "paralysis" of either the cardiac sphincter, or of the stomach, as a result of this operation. The absence of distention in the latter, and the fact of the ejection of its contents, shows the continued activity of the gastric muscle; while it is well known that "the reopening of the cardiac orifice, *on pressure from within*, is one of the first of that series of reversed actions which constitutes the act of vomiting" (Dr. Carpenter), and is therefore no evidence of paralysis of this muscle.

Dr. J. Reid has shown that section of the gastric branches of the vagi "may cause, in the first instance, vomiting." (Drs. Todd and Bowman, "Phys. Anat.," p. 493.) Here the gastric muscle is no longer adequately restrained, and contracts accordingly, just as it does when deprived of nervous restraint by the shock of a fall, by a blow on the head, by the depressing agents known as emetics, and in *the vomiting of pregnancy*, owing to the monopoly of nerve-force by the uterus in consequence of the unusual development there taking place. How naturally this explanation serves to explain these several conditions. No one who has suffered the horrors of sea-sickness, or the deadly nausea which tobacco is apt to produce in those using it freely for the first time, will doubt that vomiting is essentially dependent upon nervous paralysis rather than an excessive development of nerve-force "stimulating" the gastric muscle.

In Valentin's experiment a portion of intestine was shown to contract so effectively after the severance of all its nervous connections as to expel its contents through a perpendicular tube inserted in one end of the portion experimented on. Drs. Todd and Bowman show that involuntary discharges from the bowels and bladder are not due to paralysis of the sphincters, but to increased pressure from "the parts above," which overcomes the resistance of the sphincters. ("Phys. Anat.," p. 180.) Here, again, it is the nerves which are "paralyzed," and not the muscular fibres of the intestines or sphincters. The

contractions of the uterus and of the arterial tubes, under the influence of ergot, acetate of lead, and other drugs, may fairly be claimed to admit of a similar explanation. These drugs are inimical to normal nervous life, and certainly no one would think of them as stimulants. It is, therefore, a rational explanation of their action that by paralyzing nerve-force they withdraw its restraint over the arterial and uterine muscles, which pass into contraction accordingly in obedience to their inherent property of contractility. If ergot were a stimulant to nerve-function, it ought to quicken the pulse and dilate the arterial system as other stimulants do. Dr Radcliffe says of it, "In spasmodic ergotism, so far as we know, the pulse presents no sign of excitement throughout the whole course of the malady." ("Lectures, etc.," p. 226.) And it is well known that ergot lowers circulatory activity by a general contraction of the arterioles throughout the body.

Without delaying over minor facts and illustrations of similar import, enough has probably been advanced to justify our theory so far as the involuntary muscles are concerned. These, as is well known, are chiefly supplied with nerves from the sympathetic system, in the peculiar relations of which to its muscles there may be, and doubtless are, material differences not yet appreciated, compared with the relations of the spinal motor nerves with their muscles.

It will not do to compare the motor nerve-trunks to a tense cord, holding the muscle (like a bent bow) in restraint, and expecting the bow to straighten the moment the (nerve) cord is severed. If the motor nerve-trunks are nothing more than mere carriers of nerve-force, what is the meaning of their motorial end plates, with their prolongations studded with granules and nerve-nuclei, which penetrate the microscopic fibres of the muscle? What are these but local magazines of nerve-power, which for a time continue to control the muscle after the generation of nerve-force has ceased in the nerve-centres—as on the somatic death of the body—or after the influence of these centres fails to reach the muscle, owing to section or injury of the nerve-trunk?

When a motor nerve is cut (its molecules in the terminal end plates being at the time adjusted for muscular relaxation), the muscle cannot contract until the molecules of the terminal nuclei are reversed, or their static condition modified by trophic or other changes, not even when the muscle is separated from the body. If now a pinch, burn, a drop of dilute acid, or an electric shock be applied to the peripheral end of the nerve-trunk or to the end plates and nuclei in the muscular fibres, the static condition of the nerve-molecules is overthrown and the muscle set free to contract. If the process is repeated, or has been at first intensified, the time comes when the muscle contracts as much as it is capable of doing, and then makes no further response. It is then erroneously said to have lost its "irritability," whereas it is still capable of passing into the rigid contraction of rigor mortis. How could it ever have entered a physiologist's mind that a pinch, burn, a drop of acid, or even a rude touch, could play the part of stimuli to microscopic nerve- or muscle-fibres? Is it not, on the contrary, obvious that such rude assaults upon the integrity of nerve-function (whether applied to the nerve-trunks or to their endings in the muscular fibres) arrest the power of these attenuated fibrils—put an end, temporarily or permanently, to their restraint over the equally delicate muscular fibres which pass into a state of contraction accordingly?

In ordinary wounds the integrity of the nerve and its functions are speedily restored; but, if otherwise and nerve-function remains inert, molecular changes may confidently be expected to occur, as experience shows, and the muscle passes into a state of contraction.*

But it must also be borne in mind that most muscles have their antagonists, and when the flexor contracts the extensor must yield, and *vice versa*. The normal action of the rival muscle has therefore to be considered as a preventive to the contraction of the muscle whose motor nerve has been divided, as has also the possible intervention of other nerves not included in the section.

In justification, if such be needed, of the explanation just offered, I quote the following remarkable sentences from Dr. Thomas Laycock, Professor of Medicine, Psychology, etc., in the University of Edinburgh: "We must not forget . . . . that not only do the tissues themselves undergo normal vital changes, independently of the nerves or of the nervous system, but also that *nerves and nerve-fibrils perform their appropriate functions independently of the nervous centres*. Nerves are produced anew in organized plasma, and join on to the general trunk in accordance with the order of embryonic development of the nerves *from the periphery toward the centre*. MM. Phillipeaux and Vulpian made numerous researches which prove that *nerves separated wholly from the nerve-centres*, and completely altered as to nutrition, may become regenerated, *although remaining separate*, and recover all their vital functions. Numerous experiments on the nerves of muscles show that these motor *nerve-fibrils have their own inherent properties in entire independence of brain, spinal cord, or nerve-centres*, and not only in separate limbs, but in muscles that have been cut from their limbs." (*Med. Times and Gazette*, 1871, pp. 595, 211; *Brinth. Retros.*, January, 1872, p. 58.)

If the question be asked, would a similar explanation as that given above for the continuance of muscular *relaxation*, after section of a motor nerve, apply also to muscular contraction—that is, would the muscle if contracted at the moment of cutting the nerve, remain contracted, owing to the continuance of the static condition of the nerve-molecules which are then adjusted for contraction of the muscle? The answer is that mental emotion in the conscious subject would vitiate any such experiment, and its conditions could not be realized during artificial anæsthesia. But there is abundant and striking evidence of muscular contraction present in the last moments of life, continuing to be maintained in death; and while such facts confirm our theory, they are highly embarrassing to the theory of the day.

HOW THIS THEORY ACCORDS WITH GENERAL FACTS.

The explanation given above serves also to show why the muscles do not at once pass into a state of contraction on the somatic or general death of the body. Nerve-force holds its sway for a time in the motorial end plates and their nuclear terminations, and as it gradually dies out, the muscular contractile power thenceforth asserts itself till the exquisite organization of the muscle for the development of its proper force is destroyed in advancing putrefaction.

This gradual cessation of nerve-force, releasing one fasciculus or one muscle after another, accounts for those remarkable post-mortem movements of parts, or limbs, already referred to as wholly unaccountable on the theory of the day.

* Drs. Mitchell, Morehouse and Keene: "Gunshot Wounds," Case 87.

This theory accounts for post-mortem parturition; for parturition occurring (as vouched for by Dr. Carpenter) in cases where the spinal cord is paralyzed or destroyed; and for after-death evacuations of the intestines and bladder. During life, nerve-force restrains these hollow muscles; but when nerve-force becomes extinct, they assert their power, and if the necessity is present, expel their contents. The *paralysis* of sudden fear in men and animals, as is well known, not unfrequently results in similar involuntary evacuations.

Muscular spasms and convulsions, so generally associated with nervous paralysis, find here a ready solution, and these spasms will be tonic or chronic in proportion to the intermittent or persistent freedom of the muscles. What is called muscular "paralysis" is really a state in which the influence of the will is prevented from reaching the muscle, but in which the muscle is still contracted by the spinal nerves, the influence of which prevent it from passing into contraction, which it will do if finally freed from nervous restraint, as occurs in "late rigidity" and in rigor mortis. The term "paralysis," as applied to muscle, is therefore a misnomer.

The theory here enunciated explains the cramps of the limbs of parturient women, and the occurrence of spasm and convulsion in states of exhaustion and in death from hemorrhage. It shows why convulsions occur when the basal ganglia are deprived of blood—from nerve-exhaustion, and why they do not occur under the opposite conditions—when the nerve-centres are amply nourished and nervous restraint over the muscle duly maintained.

It explains why arterial contraction is found present whenever nerve-force is at a low ebb, as in cholera and aconite-poisoning; and why arterial contraction is complete in death when nerve-force is extinct: because, as nerve and muscle are antagonists, the withdrawal of one of the rivals leaves the more persistent action of the other unopposed.

It explains why a stimulant, as brandy or the nitrite of amyl, dilates the arteries—by increasing vaso-motor nerve-force (the antagonist of contractile power of the muscles of the arterial coats); and why a stimulant becomes our best antidote to spasm by similarly reinforcing motor nerve power, and so relaxing, by restraining, the muscles which had temporarily gained their freedom.

This principle accords admirably with what Dr. F. Anstie wrote of convulsions from narcotic agents. He states: "It is a fact that, so far from being an evidence of excitement, muscular rigidity under chloroform is one of the regular symptoms of chloroform narcosis with many patients. It is characteristic of the moment when communication between the nervous centres and muscles is about to be cut off, owing to *the temporary death of the nerves*." ("Stim. and Narcot.," p. 81.) How is this striking fact to be accounted for on the theory of the day, which demands a "stimulus" from the nerves as a condition of muscular contraction?

(To be continued.)

Changes in City Asylum Management. — Dr. Franklin, late of the Hart's Island Lunatic Asylum, has been appointed superintendent of the New York City Asylum on Blackwell's Island. Dr. A. E. MacDonald, who had been temporarily in charge here, has had his duties limited to the Asylum on Ward's Island. Dr. Healy, who was Dr. Franklin's former assistant, has been appointed to the Hart's Island branch Asylum.

Progress of Medical Science.

Tonga: a Remedy for Neuralgia.—Drs. Sydney Ringer and W. Murrell have used this remedy in eight cases of neuralgia with gratifying results. Mr. Ryder, a gentleman residing in Fiji, placed the remedy in their hands, with the following account: It has been used for several centuries by the aborigines of the Fiji Islands. A European learned the secret of its composition, and gave the drug to Mr. Ryder, who requested the authors to test its virtues. This gentleman also stated that the remedy consisted of parts of at least two plants, whose botanical relations, however, he did not know. The parts of the plants are broken up into a coarse powder, and then wrapped up in the inner bark of the cocoa-nut tree. Messrs. Allen & Hanburys have prepared a liquid extract containing one part of the drug to one part of the extract. Of this Mr. Ryder recommends a drachm three times a day. He and his friends have tried the remedy extensively, and find it most successful. It generally cures by the second or third day. In eight or ten days the pain may return, when a few additional doses will permanently remove it. It has been used in Sydney with great success. This remedy, according to Ringer and Murrell, produces no toxic symptoms. They gave two half-ounce doses of the liquid extract at half an hour's interval, and repeated it again in two hours without producing any effect beyond slight drowsiness. To another person they gave three two-drachm doses at half an hour's interval, with the same result. These doses did not affect the pupil, nor increase nor lessen the secretion of the mouth or skin; neither did they affect sensation of the skin supplied by the fifth nerve. Tonga does not affect the pupil when topically applied to the eye.—*The Lancet*, March 6, 1880.

Spirillum Fever.—An interesting paper on the experimental pathology of this disease was read at a late meeting of the Royal Medical and Chirurgical Society by Dr. Vandyke Carter. It contained details of the successful inoculation in the monkey of the contagion of spirillum fever. The author's experiments were made by injecting the blood of fever patients beneath the skin of the common Indian monkey. The main conclusions arrived at are: 1. That the spirillum fever (relapsing fever) of man is directly transmissible to a quadrumanous animal. 2. That there occurs a non-febrile infection of the blood prior to "fever." 3. That though the blood spirillum was never seen in the monkey without fever ensuing sooner or later, yet the pyrexia is secondary in time, and is susceptible of highly varied manifestations; and the spirillum disease might be defined as essentially a *mycosis sanguinis prope cum febre*. These inoculation experiments have been repeated in Germany with success (*Deut. med. Woch.*, June 21, 1879, p. 327). The question as to the constant presence of the spirillum in the blood in this fever was raised by Sir Joseph Fayrer, and Dr. Harley believed that in the specimens forwarded the "spirillar" filaments were portions of fungous growth. Dr. Lewis, as is well known, found the spirillum in some cases, but not in others, and concluded that the occurrence of the spirillum in the blood was not essential to the fever. Nor did there seem any evidence from the experiments to show that the spirillum was the cause of the affection (*The Lancet*, Feb. 28, 1880). In a note on relapsing fever, Dr. Enke, of Magdeburg

(*Practical Week*, Feb. 28, 1880), writes that he had occasion to observe 136 cases of this affection. The constant presence in the blood of spirillum was particularly emphasized. In some instances these vibrios were only discovered after repeated examinations of the patient's blood. The author furthermore concludes that the spirillum is to be regarded not only as a constant concomitant of the disease, but as its true cause.

Human Filariæ and Mosquitos.—The new investigations of Dr. Manson, communicated recently to the Queckett Club, appear to afford positive proof of a singular habit on the part of the filariæ. These microscopic worms periodically pass in and out of the circulation. Dr. Manson gives a table showing the hours of the day and night at which they are either present or absent in the blood. The worms are remarkably punctual in keeping to their appointed times. The evening inrush to the circulation commences about half-past seven, the overcrowding attaining its maximum at midnight. Numerous infested mosquitos were shown.—*The Lancet*, March 6, 1880.

Transplantation of Bone.—At a recent meeting of the Glasgow Pathological and Clinical Society, Dr. McEwen showed a boy on whom he had operated for necrosis of the humerus. The whole shaft had died, and was removed subperiosteally. New bone was produced at the upper and lower ends, but a gap of about two inches and a quarter was left in the middle, in which no bone formed. About a year after the operation, it was resolved to transplant a wedge of human bone into the gap. The bone to be transplanted was taken from the tibia in a case of osteotomy, and it was cut into small pieces before being introduced into the arm between the parts of the humerus. This was done antiseptically, and the wound healed without pus. There was still a gap, but it was much less than formerly, and the result was so favorable as to lead Dr. McEwen to repeat the operation.—*The British Med. Jour.*, March 6, 1880.

Tinea Imbricata.—Dr. McCall Anderson, at the same meeting, showed drawings and microscopic specimens of the parasite. Dr. Turner, in the first annual report of the Samoan Medical Union in 1868–9, referred to a disease under the name of herpes desquamans, occurring in both sexes and very contagious. Dr. Turner described it as a scaly disease, much more like ichthyosis in its general appearance than any other skin disease. The scales, however, ran in concentric circles, and might be well represented by taking a sheet of stout card-board and shaving the upper layers of it in such a way as to make it curl up in circles. The rings of desquamating cuticle were about a quarter of an inch apart. It was associated with heat and intense irritation. The same disease was apparently described, under the name of tinea imbricata, in a pamphlet by Dr. Patrick Manson, who said it was principally met with in the Straits of Malacca and islands of the Malay Archipelago. He had also demonstrated its parasitic nature, which Dr. Turner supposed. The specimens presented were forwarded by Dr. Manson. He had succeeded in inoculating the disease after an incubative period of about nine days. The fungus was seen as a brown mass under the epidermis, which was slightly elevated. This mass, growing larger, burst through the epidermis, leaving a brown rim, very slightly raised, and about one-sixteenth of an inch in breadth. When the entire ring thus formed had attained the diameter of about half an inch, a brown patch again formed in its centre; this, in its turn, again cracked the young epidermis over it, and a second ring was formed inside the first, and so on. Unlike ordinary ringworm, it did not usually attack the hairy parts of the body; and if it did, the hair-follicles were not invaded by the fungus, and the hair continued firm, glossy, and natural. In tinea circinata, the fungus was scanty, the spores few in proportion to the mycelium, and they were globular, with the mycelial threads short, and having numerous irregularities of outline. In tinea imbricata, the fungus was very abundant, and the chains of spores much more numerous than the mycelial threads. The spores also were oval, rectangular, or irregular, very rarely globular, and the mycelial threads were generally long, straight, or gently curved.—*The Brit. Med. Jour.*, March 6, 1880.

Treatment of Chronic Dysentery.—Dr. Raefo gives an analysis of thirty-eight cases of this disease, observed at the Seamen's Hospital, with fairly satisfactory results of treatment. Castor oil and a mixture of bismuth or hæmatoxylon were found quite serviceable. The author believes that the castor-oil treatment may be advantageously employed in all stages of the disease. With respect to the dose, in twenty-one cases two drachms of the oil were administered every alternate night. Of these, six were discharged cured. In the remaining seventeen cases the oil was given twice a week in half-ounce doses, and the number of cases discharged cured amounted to eleven. Each dose of the oil was guarded by the addition of eight drops of laudanum. The administration of castor-oil does not usually lead to an immediate diminution of the number of stools, its first effect being to improve their character. By the end of the first or second week the stools become more feculent and less offensive, and the tormina and tenesmus are less urgent. The stools then gradually fall in number, preserving often a regular gradation, interrupted, however, by repeated relapses; each relapse, if treated promptly with ipecacuanha, being more manageable and of shorter duration. In four cases turpentine was administered in conjunction with the oil. Turpentine seems to be indicated in large ulcerated surfaces, and when the discharge is offensive. The results of topical applications by injections were not encouraging. Ipecac powder is indicated whenever, in the course of treatment, the stools that have become feculent begin to lose that character and are accompanied or preceded by abdominal pain and tenderness. The necessity of watching for the earliest indication of a relapse is strongly urged. As essential to the cure, rest and strict attention to diet are insisted on.—*The Lancet*, Feb. 28, 1880.

Fibroma Cutis in Transition to Sarcoma.—Prof. J. A. Estlander reports the case of a man forty years of age, who noticed, on the posterior surface of his thigh, one of those hard tumors of the skin which occur so frequently, and are generally not so large as a pea. About seven years later, it suddenly began to enlarge, and in a little more than three months it was as large as a hen's egg. After extirpation it was found to have a compound structure, nine-tenths being fibromatous, and the remaining tenth spindle-celled sarcoma. The latter portion was closely united, but not grown together with the former.—*Finska läkaresällskops Handlingar*, Bd. 19, S. 265.

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THE INTERNATIONAL SANITARY CONFERENCE.

THE *London Lancet* of April 8th has an editorial upon the International Sanitary Conference proposed by the United States National Board of Health, which shows that the writer does not fully understand either the purpose of such conference or the organization and duties of the Board. A few words of explanation, therefore, seem in order.

The proposed conference is not for the general discussions of the sanitary relations which should exist between nations. As is properly stated by the author of the article referred to, several such conferences have been held, and the results have been small.

The conference proposed has a perfectly definite object. It is to see whether it is possible for certain powers, more especially interested in yellow fever, to agree upon some method for giving trustworthy bills of health to vessels leaving ports liable to suspicion on account of this disease. At present the great majority of such bills of health are unreliable, and the statements made in them do not command credence. For example, a Havana bill of health is always a clean bill—even though the vessel may have a case of yellow fever on board at the time of sailing.

Whether the object sought can be obtained by means of the conference we do not certainly know, but it is a very definite one—a very desirable one—and one which cannot be attained so well in any other way.

The *Lancet*, however, is particularly hostile to quarantine, and says that "Few things have excited so much surprise in this country, in connection with the administration of the United States Board of Health, as the prominence which it has given, and is still giving, to measures of quarantine in its suggestions for the limitation of recent prevalences of yellow fever. . . . . true to the old quarantine fancies, the *possibilities* of infection, however remote and inconsistent with our actual knowledge of the mode of dissemination of communicable diseases, are made to govern the practice."

Evidently the writer thinks that he has sufficient actual knowledge of the mode of dissemination of yellow fever to be sure that quarantine is useless against it.

This is a matter of opinion, but those physicians in the United States who have seen most of yellow fever think very differently.

However that may be, it will perhaps diminish the surprise of the *Lancet* that the National Board of Health has been busying itself about quarantine, if it will remember that in the first place the Board is required to do this very thing by law—by a law which it did not originate and which it has never, as a body, recommended; and in the second place, that all the regulations advised by the Board have been for the purpose of inducing local authorities to do away with non-intercourse quarantines or other like measures which interfere greatly with commerce, and to which most local authorities have been much too prone to resort on the slightest rumor of danger.

The quotation made by the *Lancet* from the bill now before the house is so presented as to give the very reverse of the real meaning of the bill.

The object of the bill is not to cut off all communication between the infected place and other States—that will be done fast enough by the surrounding States under the present statutes; but it is, on the other hand, to keep up such communication in accordance with the methods best calculated to insure safety and the least interference with commerce. We are not, however, surprised that the *Lancet* should have made this mistake, seeing that some professional men in this country have fallen into the same error.

English experience as to quarantine is of absolutely no value whatever as regards yellow fever, and we do not know enough about this disease to speak positively as to the effect of hygienic measures on it. Be this as it may, the poverty of our Southern seaports, and the character of their municipal governments, is such that there is no hope of their being put in satisfactory hygienic condition for years to come.

ON THE INTERNAL USE OF WATER FOR THE SICK.

IT would hardly seem possible that a discourse on the subject of water could present anything that is not trite and interesting. It has been the theme of poets and temperance orators for many years, and scientists have exhausted the side which ethics and æsthetics do not touch. Nevertheless, a contribution to practical medicine of genuine value is given by Dr. Meigs in his recently delivered clinical lecture on the internal use of water for the sick. He states it to be

his belief that this use of water is much less than it ought to be, and that unnecessary suffering, as well as actual injury, are produced thereby. The view that water should be employed more extensively is enforced with many illustrations from his wide experience, as well as with great literary skill and a mustering of numerous scientific facts. Water forms three-fourths of our organism. The French colonel, therefore, to give the quotation of Dr. Meigs, was only one part colonel and three parts water. Water is the universal solvent that allows free play to the nutritive changes. It distributes itself into every tissue, unites as a solid with some and assists the metamorphic and functional processes in all. It carries off effete matter, and regulates the vital heat of the body. Man can live two weeks or more without food, but he has been known to die in four days from lack of water.

These are sufficiently familiar facts, but their repetition may enforce the lesson that it is dangerous to withhold from the sick a fluid so essential to every vital process. A healthy person takes about eighty ounces per day, and he will feel distress if any less than the normal amount is given. In all febrile conditions, as well as in the alvine fluxes, the amount needed is greater; therefore, the physician should be on his guard that the patient gets an increased supply. Dr. Meigs measured the quantity of fluid given to three fever patients, and found that in a continued fever with the temperature at 103° or 104°, the daily amount was from 110 to 120 ounces. This was the quantity that the patient took when allowed to have just as much as he wished.

A striking illustration of the use of supplying all that the system craves is found in a study of the physical side of the question. One of the great functions of water is to regulate the temperature. This it does by carrying off heat through evaporation from the cutaneous surface and the lungs. About thirty-six ounces of water are evaporated in this way every day, that is, the temperature of this amount of water is raised, by the animal heat, to the point where it becomes a vapor and leaves the body. The daily amount of heat thus carried away is about two million foot-pounds. This would be equivalent, according to Professor Haughton, to raising the person's body five miles vertically every day. When a person has a moderate fever, the extra heat of the febrile condition, if transformed into force, would lift the body one mile higher, or in all six miles vertically into the air. With this tremendous drain on the system we can easily see the necessity of keeping it well supplied with the necessary fuel.

We should remember, at the same time, that in supplying the organism with water we are giving it one of the most active stimulants to combustion. As has been shown by Parkes and others, water increases the metamorphic changes in the body. Assimilation and disassimilation are promoted. In healthy persons the stimulus to assimilation is greater, and the bodily weight increases. In weakly persons, however, according to Ringer, the disassimilation is proportionately so much increased by taking large quantities of water that a febrile condition is sometimes induced. It is necessary to remember, therefore, that in fevers we are feeding the flame as well as supplying a necessity of the system. It is a fire that we dare not lessen by cutting off the fuel, lest the machinery itself be consumed.

Dr. Meigs asserts that the best and only indication for the amount of water that should be given is the thirst of the patient. Let the sick man have all he wants, provided his stomach will retain it. Even when there is vomiting, it may often be advisable to let the patient continue to drink. When he has become insensible and comatose from his disease, the rule suggested is to keep up the supply which was being given before unconsciousness set in. As stated, from 100 to 120 ounces in the twenty four hours appears, from Dr. Meigs's experiments, to be about the necessary amount in a moderately high fever.

Many physicians will, perhaps, take exception to this plan of allowing the feelings of the patient to be the guide as to the quantity of fluid. It is very authoritatively laid down in some works that fever patients, if left to themselves, will always drink to excess, impair their digestion, and, perhaps, produce flatulence or even diarrhœa. That this is a possible result of putting no limitation to the amount of liquid, every one will admit; nevertheless, we are inclined to side with Dr. Meigs, and believe that there is more danger, as there is certainly more distress, in giving too little than in giving too much. The agonies of those old times, when water was peremptorily denied, and the half-desiccated patient moaned and tossed himself about till an early delirium or death overtook him, are not repeated now, and never will be. But something of the old idea that there is danger in water still hangs about the profession and among the laity; and the remarks of Dr. Meigs in advocacy of water have, therefore, a pertinency and value that cannot well be overestimated.

THE EXCLUSIVE SOCIETIES OF PHILADELPHIA.

The Philadelphia County Medical Society is becoming quite famous as a close corporation. We do not mean to say that this is all the reputation it has, for we are reliably informed, by certain members who attend the meetings, that occasionally some very creditable work is done. Others who read the official organ of the Society are of the opinion that it is the leading medical organization of the country; but, as such readers are principally the members of said society who have their papers and remarks printed in full, they can hardly be considered im-

partial witnesses. It has been darkly whispered that many years ago the Society conceived the idea of publishing its transactions regularly in a leading medical journal. Several periodicals were tried, but each became weary in well-doing and ignominiously broke faith. Finally it was resolved to make a contract to publish good and bad alike, and, as a reward to the journal for so doing, to give it the exclusive right to act as the organ of the organization. No one should blame the Society for insisting upon the contract being kept, as it is certainly the gainer by so doing. No outside journal must be allowed to come in when it chooses and take the tidbits. If such were the case, some of the members might slyly drop their subscriptions to the organ of the Society, and perhaps seriously damage that publication. The firmness with which both parties to the contract adhere to it is a pleasant and instructive picture. The dog is satisfied with the manger, and the manger with the dog. If both are let alone no one will probably starve. We half suspect that curiosity more than hunger prompts the meddlesome interference of certain journals into what are strictly private matters. From a recent number of the *Clinical News* we learn that the Pathological Society of Philadelphia is another exclusive organization which refused any reports to that journal because of the same kind of contract. Verily the members of these societies are on a fair way to fame and extended usefulness. The injunction for all people, good, learned, and true, to let their light shine, has no application to the societies in question. The bushel is not a very large one, but it effectually covers the light.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 14, 1880.

DR. T. E. SATTERTHWAITE, PRESIDENT, IN THE CHAIR.

DERMOID CYST OF OVARY.

DR. G. F. SHRADY presented a specimen of dermoid cyst of ovary on behalf of a candidate for admission to the Society. It was removed by abdominal section, and contained sebaceous material mixed with long curled hair. The patient made a good recovery.

DR. SATTERTHWAITE presented a specimen of locomotor ataxia, with sclerosis of the posterior columns.

POST-OCULAR TUMOR.—EXTIRPATION OF EYE.

DR. JOSEPH W. HOWE exhibited a post-ocular tumor with the following history:

Daniel Callaghan, aged 57, occupation laborer, was admitted to St. Francis' Hospital on Jan. 31, 1880, suffering from a post-ocular neoplasm and protrusion of the eye. He stated that his grandfather died at the age of seventy-two, with some tumor involving the eye. His father died at seventy-eight, with what was called "cancer of the nose-space." His mother also was afflicted with a tumor of the nose, which was removed by an operation. The tumor, however, returned and destroyed her life at the age of forty-eight.

Patient has not been addicted to the use of stimulants, and has never had any form of venereal disease. Thirteen years ago a papule appeared on the upper portion of the left side of the bridge of the nose. In a few months this papule softened, and an ulcer took its place, which increased very slowly, running toward the inner canthus. In October last caustics were applied—the ulcer was destroyed, and cicatrization of the whole surface took place. About one year ago his left eye began to grow prominent and painful. The pain was lancinating and intermittent. The protrusion and pain gradually increased with some loss of vision. Six months ago the sight in that eye was completely lost.

On admission the patient complained of intense pain through all the branches of the fifth pair of nerves on the left side. The pain being particularly intense in the orbit. The eye protruded very much beyond the lids. There was little or no pain on pressure.

February 4th.—The patient was etherized, and an incision made in the outer canthus, preparatory to exploring the orbital cavity. The conjunctiva was then opened and the finger introduced behind the eye. The tumor was found to surround the optic nerve, and to be firmly attached to a small portion of the floor and inner wall of the orbit. It was then decided to remove the eye as well as the whole of the morbid growth. The eye was enucleated in the usual manner, and the tumor removed, together with a portion of the floor of the cavity. On the inner angle of the orbit there seemed to be a small connection of fibrous tissue extending from the tumor to the edge of the cicatrix at the inner canthus, and forming a link between the two.

The patient bore the operation well, and has made a good recovery.

The tumor was examined by Dr. Wendt, who made some fine drawings from the specimen. It is a rare form of neoplasm, called a cylindroma. It is, however, also known as a tubular cartilaginous tumor, tubular sarcoma, mucous cancroid, plexiform sarcoma with hyaline vegetations, cancroid or adenoid sarcoma. On account of the characteristic variously shaped cylinders and dendritic protuberances, Billroth's term cylindroma seems to be the most appropriate designation. In this case, according to Dr. Wendt, the tumor consists essentially of a stroma of small round-celled sarcomatous tissue, imbedded in which are found plexiform cylinders which may be readily isolated by teasing or pencilling. In addition to these we meet with spherical, ovoid, or club-shaped figures. Sometimes these branching bodies assume a striking cactus-like outline. They seem to have pushed aside the interstitial tissue, creeping in between its interlacing bundles. All these bodies have a hyaline appearance, and contain numerous polymorphous corpuscles, with large conspicuous nuclei. In many instances such masses correspond to firmer lymphatics, since the peculiar endothelium of these vessels can be readily recognized.

According to Koester, the hyaline spheres and cylinders are the product of a secondary hyaline metamorphoses, which the cell-trabeculæ of a cancroid of the lymph-vessels undergo. This endothelium proliferates and plugs up the lamina of the vessels, which explains why the tumor at first sight bears such a close resemblance to certain tubulated epithe-

homata. That it is not an epithelioma is proved by the sarcomatous tissue surrounding the hyaline masses, and by the minute structure of the cells composing them.

The specimen was referred to the Committee on Microscopy.

INTRA-OCULAR AND EXTRA-OCULAR ORBITAL SARCOMA.

Dr. C. S. Bull presented a specimen of tumorous growth removed from the orbit in order to report progress in the treatment of a case already presented to the Society. He gave the dates of the different previous operations respectively as follows, and concluded with an account of the removal of the last specimen:

July 7, 1879.—First operation. Enucleation of eyeball and excision of a piece of the optic nerve.

October 30.—Second operation. Removal of a very large orbital tumor with fungoid, bleeding surface, and removal of all the orbital tissue.

December 27.—Third operation. Excision of upper lid (outer two-thirds). Removal of diseased periosteum, and of diseased bone from frontal and malar bones by gouge and scraper.

Growth made its reappearance in orbit on nasal side and in inner third of upper lid on March 8, 1880.

March 17, 1880.—Fourth operation. Inner canthus divided horizontally as far as median line of nose. The remains of upper and lower lids dissected up from growth and thrown back—then by means of scissors, hooks, and the finger, the orbit was cleaned of the growth slowly and as effectually as possible. It was very soft and exceedingly vascular, and was found to proceed from the bone of the roof, from the ethmoid, from the antrum, and from the apex of the orbit. The roof and inner wall of the orbit had apparent exostoses developed from them, some of them quite long and projecting into the orbit like stalagmitic growths. They were quite hard, but could be broken off. They were especially noticeable at the junction of the roof with the inner wall of the orbit. The os planum of the ethmoid was perforated, the bone very much diseased, and the tip of the finger could be passed into the superior nasal meatus, and a depression in the floor of the orbit apparently led into the maxillary sinus. After the orbit had been cleansed as far as possible, it was slowly and carefully washed out with a carbolic acid solution (1-20). The fluid entered the nose and apparently the frontal sinus also, from the pain complained of. Caustics were avoided on account of the deep ravages of the disease.

April 3.—Growth has returned at the line of incision over the nose and in the neighboring bone, and also at the external angle of the orbit.

She has had several severe hemorrhages from the orbit, one quite alarming. No head-symptoms except a constant, dull headache. Patient's condition is not good—had frequent sweats—pulse thready, though not very rapid.

VOLKMAN'S OPERATION OF RESECTION OF KNEE.

Dr. Briddon presented a child upon whom he had operated for resection of the knee according to Volkman's method. The patient had been an inmate of the Presbyterian Hospital for eighteen months, suffering from osteo-arthritis, which went through various phases of exacerbations. The operation was performed December 27th, with the usual antiseptic precautions. The limb was kept in an extended position by means of a plaster-of-Paris splint; the soft parts healed entirely, the bisected patella united and could be freely moved upon the inter-condylar notch. The shortening was half an inch.

The patient had also developed a condition of caries of the cervical vertebræ, and was wearing an apparatus for the same.

Dr. Gibney remarked that it very frequently happened that after disease of the bone had existed for a considerable period in the lower extremity, a similar trouble occurred in the spine. The association of these two conditions were oftentimes so direct as to appear almost in the relation of cause and effect. He had intended that evening to bring a specimen illustrating that point. It was removed from a boy aged seven years, who sprained his ankle five years ago; caries of the tarsal bones followed, and in the course of three years thereafter, the 8th, 9th, and 10th dorsal vertebræ became involved in the same disease. About a year subsequently he developed caries of the head of the left femur, and finally died, at the age of fourteen years, with tubercular meningitis.

If there was any causative relation between the first disease and the one which caused the death of the patient, the propriety of early treatment of joint diseases was quite apparent.

Dr. Satterthwaite said that the question raised by Dr. Gibney was an interesting one. He had seen similar cases of caries attacking different parts of the body in succession, showing that such a state of things might have been due to an embolic process.

Dr. Carpenter asked which was the more tenable theory, the one of embolism, or the one which maintained that the successive appearance of caries was owing to local manifestations of a constitutional disease?

Dr. Satterthwaite believed that pus could be transported from one part of the body to another, and thus account for the appearance of caries in different localities in succession. He mentioned a case in point in which pus existed in the uterine sinus, which condition was followed in turn by a carious rib, and finally empyema. The theory of embolism seemed to him to be a tenable one in that it explained the conditions on purely mechanical principles.

Dr. Post, in connection with Volkman's operation, remarked that it was far superior to all other methods of resection of the knee.

RUPTURE OF HEART FROM INDIRECT VIOLENCE.

Dr. Finnell presented three specimens. The first was a heart removed from a negro, 19 years of age, who fell from a third-story window, striking upon the sidewalk. The injuries inflicted were: fracture of the fourth, fifth, and sixth ribs of the right side, fracture of left clavicle and right elbow; rupture of liver, and a laceration of the right ventricle of the heart, two inches in length, and extending up to the root of the pulmonary artery. The latter specimen was exhibited. Death was instantaneous. The pericardium was filled with blood. The rupture of the heart was of course caused by indirect violence.

The second specimen was an enormously distended gall-bladder, removed from a woman aged 45 years, who had died of starvation.

The third specimen was a fibro-cystic tumor, removed from the knee of a woman aged 45 years.

EPITHELIOMA OF RECTUM.

Dr. Post presented an epithelial tumor of the rectum, which he removed by surgical operation, from a man 60 years of age. It appeared, from the history of the case, that the growth was only of three months' duration; occupied less than half the cir-

cumference of the rectum, and extended from just above the margin of the anus to a point reached by the end of the finger. The patient had not suffered from any symptoms of obstruction. A semi-elliptical incision was made on each side of the anus, and the growth with two-thirds of the rectum removed. During the operation there was a time when the patient's pulse became imperceptible at the wrist, and also a period when the same condition obtained after the operation. Stimulants were administered on both occasions with the desired effect.

Dr. Knapp presented a specimen of glioma of the eye, illustrating the propagation of the disease through the optic nerve itself, rather than, as was usually the case, through the tissue between the fibre-bundles.

VESICAL CALCULI IN A DOG.

Dr. Heinemann presented over a hundred vesical calculi of triple phosphate, and of a size varying from that of a small pea to that of a small hickory-nut, which were taken post-mortem from the bladder of a spitz dog. The stones almost completely filled the bladder, but there was little or no thickening of the mucous membrane, or hypertrophy of the abdominal walls. The animal had not suffered from any symptoms referable to the bladder.

HIGH TEMPERATURE WITH ACUTE CEREBRAL MENINGITIS.

Dr. Satterthwaite presented a specimen of acute cerebral meningitis accompanied with unusually high temperature. He gave the history as follows:

In November, 1878, I was asked by a surgeon, now deceased, of this city, to take charge, during his temporary illness, of a young married woman who had been under his care at various times. During the summer, while at a seaside watering-place, she had contracted what was said to be cerebro-spinal meningitis, and this diagnosis was confirmed by the opinions of a number of medical gentlemen who saw her. When first called in I found her in a state of great restlessness, with photophobia, pain in her head, and "showers of cold" running up and down her spine. The pain in her head had induced her to take large doses of opium, and she was at that time confirmed in the habit, taking often the equivalent of eighteen grains of solid opium a day. This amount was doubled in periods of excitement. As symptoms of insanity developed at a later period, she was taken to an asylum, remaining there about two months. She left apparently cured, though in a highly nervous and debilitated condition. She passed the spring and early part of the summer in active outdoor exercise, being much on horseback, keeping up the exercise after her return to the city.

In October of last year she again consulted me for symptoms very similar to those previously related. Her business affairs were a source of much trouble, as also certain family relations, and she was very apprehensive of something impending, had fleeting pains not localized, was exceedingly restless, and could with difficulty be quieted. As a substitute for morphia she had taken the bromide of potassium, though in what doses is not known, as she was in the habit of helping herself with a measure, with which she dipped out the drug from a box. The amount was at least thirty grains. As the bromide was not thought by her to have much effect, for it was substituted the ordinary mixture of the bromide and chloral, āā gr. x., given three times a day. It at once had the happy effect of producing quiet, and securing continuous sleep for six to eight hours. The chief symptoms during this attack were nervous rigors, photophobia, frequent and painful micturition (an old difficulty); headache (over the convexity); the tongue was said to feel thick, and taste was partly wanting. The tongue was usually coated. Bowels were moved by enemata daily. No paralysis or convulsions. Under this treatment, careful nursing, and the application of the continuous current to the spine three times a week, the symptoms were relieved, and she appeared to be convalescing. The duration of the attack was about two weeks. On November 10th she ran up and down stairs a number of times, contrary to instructions, and became violently excited about some carpentering work done in the house, and went to bed. The same symptoms recurred. The bromide of potassium was given for some days, once or twice in as large amounts as two drachms a day, but not continuously. There were clonic spasms of the facial muscles, brought on by a number of exciting causes. There was also suffusion of the eyes, photophobia; tonic spasms of flexors of hands and forearms; headache, but no convulsions or paralysis. On November 17th she became comatose; the water was then drawn twice a day, and the bowels were moved by enemata. Pupils at first were dilated, later they were contracted, but thus far responsive. On November 27th she was seen, in consultation, by Dr. A. L. Loomis. Inquiry was made as to the question of bromides, and the amount taken, and a positive diagnosis was not made. During the preceding ten days she had not left her bed, and had taken no sedative. Previous to that it was difficult to say how much of the bromide she had taken, for the reasons already given. When seen again, in consultation, by Dr. Loomis, November 29th, the diagnosis of acute cerebral meningitis was entertained.

At the post-mortem examination, which was attended with some restrictions, only the brain and medulla were removed. The vessels of the pia mater were found gorged with blood, and there had been a transudation of red and white corpuscles into the meshes. There was also about four ounces of bloody serum which escaped when the brain was removed.

The following very high temperature was noted during the last day of life. It was taken by Mr. Morton, student of medicine.

				Temp. (taken three times.)	Resp.
12.30	P.M.,	Nov. 28,	1879	107.5°	36
1.30	"	"	"	108°	40
2.25	"	"	"	108⅛°	—
3.00	A.M.	"	"	—	40
3.40	"	"	"	108¼°	37
4.30	"	"	"	109°	—
5.00	"	"	"	109°	36
5.30	"	"	"	109¼°	37
5.53	"	"	"	109°	38
6.00	"	"	"	108¾°	—
6.20	"	"	"	110°	—
6.26	"	"	"	Died.	

At the end the register in the thermometer was pushed up to the top of the tube, so that it may have reached even a higher point. Mr. Morton has since tested the thermometer with a standard and found it correct.

Dr. Satterthwaite wished to put this case on record because of the high temperature, which was carefully taken, and he had every reason to believe was correct. He observed that, although physicians had told him in conversation that they had seen remarkable cases of high temperature, as in scarlatina, there were but few of such cases to be found on record. There seemed to be no doubt that wonderful

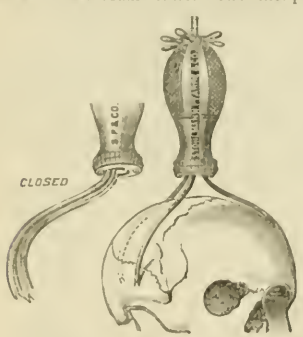
extremes of temperature were occasionally reached. He would simply mention here that quite recently the patient of Mr. Teal, who had a temperature varying between 108° F. and 122° F. during a period of sixty days, came, during a relapse, under the care of Mr. Hind, and the temperature then rose so high as to break the bulb of the instrument.

In this present instance cold sponging and hypodermic injections of quinine in large doses did not prevent the temperature from rising.

Dr. Satterthwaite also presented three new instruments for post mortem use. The first was a

CALVARIUM CLAMP.

The instrument, which is twenty-five centimetres long, is so constructed as to fit into a post mortem case of medium size. It consists essentially of three curved prongs terminating in sharp extremities, which are held and may be easily pressed into the bone where they will remain firmly embedded, as long as is required. These prongs are fitted into a handle which is of metal and has great strength. Upon the upper extremity of the handle is a screw, by the revolution of which the points of the prongs are approximated or separated. The instrument was devised as a means of holding the calvarium firm while it is being removed. After making the usual transverse incision through the scalp, just behind the ears, the *pericranium* should be included in the reflected flaps. This is effected without much difficulty by means of the handle of an ordinary scalpel. One of the prongs should then be forced into the bone in the temporal fossa just below the temporal ridge, in the frontal bone about one-half an inch in advance of the coronal suture. The other prong is



to be placed in a corresponding position on the opposite side. The third prong is to be caught in the rough depressions at the junction of the sagittal and lambdoid sutures, perhaps a little lower down, according to the form of the particular skull. If an assistant steadies the handle, the points of the prongs may be more rapidly and effectively adjusted. Sometimes the bone is unusually hard and then it is well to nick the bone with a chisel before adjusting the instrument. When all these points have been attended to, the calvarium may be removed with great rapidity. There is also no danger to the hand from the accidental slipping of the saw.

MODIFICATION OF BRUNETT'S CHISEL.

This instrument consists of a chisel of great strength, armed with a prong that is designed to run along the spinal canal. From the chisel, about its middle, arises a stout handle for the purpose of steadying it. It is inclined somewhat backward. The instrument terminates posteriorly in a knob, serrated on its head so as to receive the blows of the mallet. The cutting edge of the chisel forming a

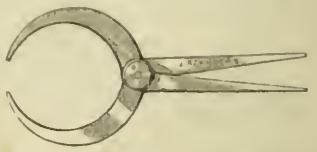
somewhat acute angle with the prong, makes a notch, and is thus retained in its proper relation with the bone. To use it, first remove a few vertebræ from the dorsal region at the greatest convexity, then placing the notch of the chisel against the lamina of the vertebræ, drive the instrument forward with a heavy wooden mallet.

This instrument is particularly adapted for opening the canal in the cervical region, where it is almost impossible to use the saw.

In a recent operation the spinal cord was taken out entire from an athletic male adult in exactly thirty minutes.

COMBINED EXTERNAL AND INTERNAL CALLIPERS.

It has long been desirable to have some simple instrument, both to measure either the diameter of a passage or cavity on the length and breadth of an organ, or in fact any solid body. In estimating the diameter of the cardiac openings, this is particularly valuable. It has been customary to make use of the



term "admitting two fingers, three fingers," which, of course, is not at all precise, depending as it does on the size of the fingers. Some time ago Dr. S. devised an instrument shaped like a wedge and marked off with lines indicating the breadth at different points. This, however, is unwieldy. The instrument here described measures both internal and external diameters, and is really an old tool that has long been used by mechanics. On one side we have curved legs, on the other side, straight ones. They are jointed together by a screw and nut; the latter can be tightened or loosened at will by a key that accompanies the instrument.

MANHATTAN EYE AND EAR HOSPITAL.—Mr. William Astor has given five thousand dollars for the building fund of the Manhattan Eye and Ear Hospital.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 15, 1880.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

DR. F. H. BOSWORTH exhibited a substitute for Belloc's canula, which will be described and illustrated in a future number of this journal.

CONVULSIONS IN CHILDREN.

DR. A. A. SMITH read a paper on the above subject, in which he directed attention to practical points. He thought the statement so frequently met with in literature that convulsions in children, independent of organic disease of the brain, were rarely serious, was very liable to mislead the young practitioner; for, if it was admitted that one in one hundred cases might be dangerous, the statement must be modified. He believed that *any* case of convulsions might be dangerous, and, therefore, the physician should *always* study each case carefully. Probably the age at which children were most liable to have convulsions was between six and twenty-eight months—the period of dentition. They did not occur simply because dentition occurred during that period, but in addition the nervous system of the child was then rapidly developing and was much more impressible than in adult life. Usually the tendency to disturbance of the nervous system manifested itself differently among different members of the same family. For example, if a temperature of 105° F. was developed in a child as the result of simple indigestion, it was very evident that the child possessed a nervous system that was very susceptible to the influence of slight irritation, and such a patient needed watchful care in any form of illness. Hereditary tendency was an important factor in the etiology of convulsions in children, and, in the majority of cases, the predisposition was transmitted by the mother. If, as was maintained by many good observers, diseases of the nervous system were greatly on the increase in the United States, and if it was true that predisposition to convulsions was transmitted from parents to children, the question of convulsions in children was more important than it ever had been. In a few cases he had been able to find a history of convulsions in the childhood of the mother. The weight of opinion was that puerperal convulsions did not leave a permanent tendency to convulsions in the child. Children with rickets were very susceptible to influences that produced convulsions. Overfeeding, undoubtedly, often produced convulsions, and they might be serious. Quite a number of cases were on record in which the child died in a convulsion, and at the autopsy no cause could be found other than a stomach well filled with undigested food. Improper feeding might also cause convulsions in children. The giving to young children a little of everything, as was often done, was calculated to do mischief. The exciting cause in a large proportion of cases of convulsions in children could be found in errors in diet. Malarial poisoning might cause convulsions in children. Dr. Smith then referred to several cases which he saw with Drs. Lente and Murdock, of Cold Spring; all were apparently of the simple form of malaria, and all recovered. It was still a question whether the convulsions in that class of cases were produced by the poison itself, or by the high temperature, or by the sudden hyperæmia of the brain, supposed by some to exist. A convulsion, occurring in the course of an acute disease, especially toward the close, was a grave symptom. A convulsion occurring in the course of whooping-cough was an unusually grave symptom, if unassociated with dentition or some disturbance in the alimentary canal. With reference to syphilis as a cause of convulsions in children, the author of the paper had found recorded cases of unmistakable congenital syphilis, in which convulsions occurred during the first three months of life; and he also referred to a case of that kind which came under his observation while an interne in Bellevue Hospital. Nervous excitability, which showed itself in a tendency to develop convulsions in childhood upon slight provocation, might, in later life, develop into epilepsy. It was fair to presume that, if a child had convulsions, and, later in life, had epilepsy, there already existed the pathological changes which resulted in epilepsy. It would seem almost impossible that functional disturbance of the nervous system could lead to such permanent changes in the central nervous system, as indicated by idiocy or permanent impairment of intellect, unless there existed, previous to the attack of convulsions, some lesion of the brain or spinal cord; and yet, upon theoretical grounds, it would seem just as impossible that such stormy outbursts as seen in convulsions should occur and not leave permanent injury. It would be interesting to know whether or not convulsions in children belonged to civilized life.

Treatment.—Dr. Smith considered the question of treatment under three heads: 1. The management of the attack; 2. Prophylaxis; and 3. The subsequent treatment.

Whatever the cause, whether due to organic disease or to functional disturbance, the convulsion should be arrested and another prevented by the administration of anæsthetics, preferably chloroform. As soon as the cause was found, it should be removed if possible. If the convulsions were due to pain produced by other than causes such as the pricking of a pin, tight abdominal bandage, which could be easily removed, and an overloaded stomach, which could be easily emptied, opium was the most valuable remedy that could be used, and he would employ it if the child was *more than four months old.* The convulsions dependent on the pain of teething should be controlled first by opium, and second the gum lance. The effort to lance the gums before the pain was subdued by opium or a similar agent, probably would cause another convulsion. Convulsions dependent on the pain produced by worms or other foreign bodies in the intestinal canal, or errors in feeding, should be first controlled by opium, and then a cathartic should be given. Convulsions produced by worms were not always attended by pain. The cathartic and opiate might be combined with advantage. If there was reason to believe that the source of irritation was in the rectum or near it, and an enema was indicated, an opiate should be given first, and when its influence was secured sufficiently to control the convulsion, then the injection might be given.

Convulsions due to malarial poison, although not preceded by pain, yielded more promptly to opium than to any other agent; having controlled the paroxysm, put the child fully under the influence of quinine for the purpose of preventing its recurrence. The tolerance of opium was sometimes very great in that class of cases, as well as in all others in which its use was indicated.

With reference to lancing the gums, Dr. Smith believed that if they were swollen and hot they

should be lanced. Further, if it was time for the tooth to appear he believed the gum should be scarified, for the irritation was due, not infrequently, to deep-seated pressure such as could not manifest itself upon the surface. Whatever theory might teach, it seemed to him that from clinical observation it was conclusive that lancing the gums was followed frequently with marked relief.

As in the great majority of cases opium was indicated, the mother might, with safety, be told to give the baby, *over five months old*, paregoric, with explicit directions concerning size of dose; to be repeated every half hour until the convulsions either were controlled or a physician had arrived. If the child was under four months old, Dr. Smith prescribed a teaspoonful every hour of a mixture of bromide and chloral with bicarbonate of soda, of which each dose contained one grain of each remedy. It was conveniently given in warm, sweetened water. Double the quantity might be given every hour or two hours to children from six weeks to four months of age, according to the frequency and violence of the convulsions.

NON-USE OF THE HOT BATH.

Dr. Smith rejected the hot bath in the treatment of convulsions of children; for, almost invariably the child had one or more convulsions while in the bath—the very agitation incident to the giving of it adding to the excitement of an already disturbed nervous system. The object in treatment was to keep the nervous system as free as possible from agitation; hence, he forbade the hot bath, insisted that the child should not be restrained while in a convulsion, that it should be placed on a bed that did not squeak, that the room should be kept perfectly quiet, have plenty of fresh air, be partially darkened, contain only one person at a time, and that opening and shutting of doors should be avoided. Over-active treatment was uncalled for, if not positively dangerous.

Dr. Smith then spoke of the sedative effect of the bromides, and of the value of maintaining it in cases in which the prolonged use of opium was undesirable. He believed that the intense itching, which especially followed scarlet fever and measles, might be the cause of convulsions in young children, and in those cases the bromides acted most favorably. In occasional cases the bromides aggravated the symptoms. Under such circumstances chloral might be used. To control convulsions dependent on high temperature he recommended veratrum viride. Its tendency to produce vomiting might be controlled by combining it with opium. Two drops of the tincture might be given every hour to a child from six to eighteen months old. If it produced vomiting no harm was done, for the pulse and temperature then usually fell and the convulsions ceased. If the remedy failed to control the convulsions, the cold bath was indicated. Coma was quite frequent in that class of cases, and the child was then in imminent danger. The temperature must be reduced, and the cold bath was the most efficient means that could be employed.

The sedative action of calomel, especially in convulsions occurring at the onset of an acute pulmonary affection, was then mentioned with favor.

Under the second head, or *prophylaxis*, Dr. Smith referred to the proper care of the mother during pregnancy, especially with reference to proper exercise, food, amount of sleep, condition of bowels, and all that pertains to diminishing the tendency to nervous disturbances in the child.

Prophylaxis in the child was suggested by a study of the causes of the convulsions. The object to be accomplished under the third head, or treatment subsequent to the attack, was to remove causes and predisposing causes, and keep the child in the best possible physical condition.

The paper will appear in full in the *American Journal of Obstetrics and Diseases of Women and Children*.

Dr. J. Lewis Smith remarked that, at the Bellevue Hospital Outdoor Poor Department, he had carefully observed cases brought there during the last six years, and had been unable to convince himself that there was any connection between the convulsions of young children and epilepsy of later life. The age at which epilepsy was liable to develop was from five to seven years, but he regarded the two as independent conditions.

With reference to treatment Dr. Smith said that he had not carried a gum-lance for five or six years. He had relied upon the bromides, of potassium preferably, in large doses frequently repeated—two to six grains for a child over two months and under one year of age, repeated every ten, fifteen, or twenty minutes, according to the severity of the case—to control the irritation produced by the irruption of the teeth. In convulsions of children he gave hydrate of chloral, and always by rectal injection, and had been astonished to see how quickly the convulsive movements would cease in a child that had been so treated; the first thing noticeable being relaxation of the face, then of the arms and legs, and usually in a few minutes the convulsion had entirely ceased. He rarely found it necessary to remain with the patient more than half an hour, whereas formerly he had not infrequently found it necessary to remain several hours before the convulsions were controlled. With reference to hot water, he could not agree with the author of the paper in condemning its use in the treatment of convulsions. He believed it to be a beneficial agent, and certainly when a child was threatened with convulsions, had twitchings, etc., he would put it into a hot-bath, as he had often seen exceedingly good results follow. Twenty-five years ago musk and assafœtida were used a great deal; but now that the bromides and chloral were so commonly employed, convulsions in infants and young children were regarded as much less formidable than in those days.

With reference to anæsthetics, he now never gave them in the class of cases under consideration.

Dr. S. T. Hubbard remarked that he had under observation several cases of epilepsy, and in some of them the convulsions dated from infancy; in one case the convulsions began when the child was one year old. He was inclined to believe that in some cases there was a direct connection between the convulsions of infancy and epilepsy developed later in life.

As to the opium treatment, referred to by the author of the paper, he was afraid to use opium in the treatment of disease occurring in children. He remembered the directions given him by Dr. Beck—namely, never to give opium to a child under four or five years of age. He had used the bromides and chloral in the treatment of convulsions of children, and with good success.

He had frequently used chloroform and had not feared the dangerous results of which Dr. J. Lewis Smith had spoken. He agreed with the author of the paper that anæsthetics were beneficial in arresting the convulsions.

With reference to the hot bath, he had discon-

tinued its use, in the ordinary sense of the term, but had used hot water with good effect in the following manner: Strip the child, then wrap it in flannel that had been wrung out of hot water, and over that place a dry flannel blanket. The idea was to increase the action of the skin without producing shock, and all the good effects of the hot water were obtained as well as they could be by means of the bath. When called to a case his first inquiry usually was, "What has the child been eating?" The usual answer was, "Nothing of account." But, on close inquiry, insisting that the articles of which the child had partaken should be mentioned, he not infrequently found sufficient to account for the occurrence of the convulsions. He was inclined to the opinion that in a large proportion of cases, perhaps nine out of ten, convulsions in young children were due to errors in diet.

Dr. J. L. Campbell, on invitation, remarked that he was heartily in sympathy with the author of the paper in the opinion that the hot bath was not only not beneficial, but he believed it was positively injurious, inasmuch as it prevented the *sine qua non* in the treatment of convulsions—namely, keeping the nervous system perfectly quiet. The author of the paper had referred to malaria as a cause of convulsions, and he had no doubt that malaria did frequently produce convulsions in children. The author had spoken of the convulsion, in such cases, as taking the place of the chill; he, however, was inclined to believe that it was the result, the chill causing sudden hyperæmia of the nervous centres.

Dr. M. Blumenthal thought that, in the great majority of cases of convulsions in children, it would be found there was some disturbance of the vascular or nervous, and that the nerve-centres were in the condition either of anæmia or congestion. He favored lancing the gums, and related the following case as bearing upon that point: He was called to see a child severely sick with pneumonia, and it had also had convulsions, which he thought depended upon some other cause than the pulmonary disease. He examined the child's gums, found them swollen, filled with blood, and suggested that they be lanced. The attending physician lanced the gums and the convulsions ceased at once, after having continued for twenty-four hours.

Dr. Richards also favored the use of the gum-lance.

THE NEW YORK SURGICAL SOCIETY.

Stated Meeting, February 10, 1880.

Dr. H. B. Sands, President, in the Chair.

OPENING THE SAC IN POPLITEAL ANEURISM.

Dr. J. C. Hutchison read a paper in which he reported a case of popliteal aneurism successfully treated by laying open the sac.

Only one artery was found connected with the sac, except that which entered it directly, and at the operation was found closed below. It was believed that vessel was the internal circumflex rather than the profunda. Hemorrhage from the artery was controlled during the operation by introducing a gum-elastic bougie into its open mouth. The sac had about the usual thickness, the tumor had grown slowly, and the pulsation was powerful. The elastic bandage was applied from the toes up to the tumor, and compression was made upon the abdominal aorta during the operation, and still the hemorrhage was quite profuse. The patient had been operated upon by distal ligation four years and a half previously, but unsuccessfully. The aneurism had also been treated unsuccessfully by the use of injections.

Dr. T. M. Markoe remarked that an aneurism such as described might be expected to have as powerful pulsation as the original tumor. He referred to a similar case in which he ligated the carotid upon the distal side, and subsequently injected the sac with persulphate of iron. Shortly after the injection, the patient fell into a fainting fit and died at the end of about one and a half hours. The aneurism received two injections, and two large hard coagula of ochrey hue were found in the sac when opened.

The President remarked that Dr. Hutchison's case was interesting as showing the great uncertainty of effecting coagulation by injections, because an aneurism more favorably situated for cure by the use of coagulating injections could hardly be found than one which had communication with no artery except the one by which it was fed. Another singular thing to be noticed in this connection was that when coagulating injections fail in causing the consolidation of an aneurism, and yet do not produce any evil results, it is usually taken for granted that the coagulæ which are produced fail to lead to a cure, because they are washed away in the current of blood and taken to some point beyond the sac; but in this case, if coagula were produced, as they seem to have been, by the injections, and subsequently disappeared, they could only have done so by a process of softening or solution gradually becoming mingled with the blood as it entered and escaped from the aneurismal sac.

Dr. Robt. F. Weir remarked that his experience upon the subject had been acquired entirely while in military service. He had opened the sac, in the treatment of aneurism, in only two cases, and those were *recent* traumatic aneurisms, therefore, perhaps, did not strictly belong to the class of cases under consideration.

Case I.—On the 9th of July, 1864, a man was wounded by a bullet which passed completely through his left and lodged in his right thigh. On the 3d of August a large pulsating tumor was recognized, and it was determined to open it. The hemorrhage was controlled by pressure in the groin.

The artery involved was found to be the profunda. The sac was laid open to the extent of five inches, and its contents, nearly a pint, evacuated, and the vessel secured above and below.

Case II.—On the 17th of September, 1862, a man was wounded in the right side of the neck by buckshot. On the 29th secondary hemorrhage occurred. Soon after, by invitation of one of the surgeons, he saw the case when an aneurismal tumor existed, and extended from the jaw to the clavicle.

Persulphate of iron had been applied to check the hemorrhage, and a large mass of material was adherent to the side of the neck. It was removed, but no bleeding occurred. An opening was made, and Dr. Weir was fortunate enough, in introducing the finger, to strike the opening in the carotid artery at once, but he was not able, after laying open the sac freely, for some time to find the vessel above and below, but finally succeeded and secured it with ligatures. The man had the next day another secondary hemorrhage, and died at the end of twenty-four hours. Autopsy showed that the hemorrhage came from the superior thyroid artery.

In one of the following cases Syme's operation was intended, but was fortunately avoided; in the other, the hemorrhage was due to a ruptured aneurismal sac.

Case III.—On the 17th of September, 1872, a man received a gunshot wound just below Poupart's ligament, and came under Dr. Weir's observation about the first of November, when he had a large aneurism extending from below Poupart's ligament up into the iliac fossa, so high as apparently to prevent an attempt to ligate the common iliac artery. It was deemed advisable to do Syme's operation, and the following day was assigned for its performance. During the night however, the tumor rapidly increased in size, and on the following morning it was found that the external iliac could be recognized, it had been crowded up upon the inner surface of the tumor. A straight incision, directly upwards from Poupart's ligament, enabled him to reach the vessel readily and it was secured. The patient recovered.

Case IV.—A man received a gunshot fracture of the inferior maxilla, and serious hemorrhage followed, the blood flowing through the wound from, as it was afterwards learned, an opening in the artery just at the bifurcation of the carotid. The injury was received on the 9th of July. Secondary hemorrhage occurred on the 20th, when the common carotid was ligated. On the 2d of August secondary hemorrhage again occurred, and the artery was again ligated below the site of previous ligation, as the bleeding came from the proximal side, and where a small aneurismal sac was found which had ruptured and given rise to the hemorrhage.

The patient died at the end of twenty-four hours from exhaustion.

Dr. Euskine Mason referred to a case of traumatic aneurism of the carotid occurring in a boy eight years of age, who had been wounded by a shot from a small gun. The common carotid had been ligated. The patient had lost a large quantity of blood. The operation being unsuccessful, and the patient's life being in great danger, Dr. Mason, when the case came under his observation, opened the tract of the wound with the view to secure the vessel above and below, but one gush of blood terminated the case. He also referred to a case of traumatic aneurism of the anterior branch of the temporal artery, about the size of a hickory nut, which was laid open, the artery secured above and below, and the patient did well.

The President remarked that the cases referred to by Dr. Weir and Dr. Mason were traumatic aneurisms, while Dr. Hutchison's case was one of spontaneous aneurism. He thought Dr. H.'s case was interesting as showing, as had been before shown, that the arteries in the immediate neighborhood of an aneurism of spontaneous origin may be healthy and bear the application of a ligature, thus supporting, to some extent, the view taken by Mr. Syme, that the proper method of treating aneurisms of *spontaneous* origin is to lay open the sac and ligate the vessels which feed them, a doctrine which Dr. Sands thought was not considered sound, although it was favored by the results of such cases as the one related by Dr. Hutchison.

DERMOID CYST IN THE REGION OF THE COCCYX AND INVOLVING A PORTION OF THE LEFT BUTTOCK.

Dr. E. Mason reported a case as follows: Three weeks ago he saw a lady twenty-seven years of age, who was supposed to have necrosis of the coccyx. About twelve years ago, without known cause, an abscess appeared upon the left buttock, at the junction of the sacrum with the coccyx, was opened, discharged about a gill of matter, and continued to discharge more or less for ten days or two weeks. The opening then closed, and the wound apparently well for a month, when another abscess made its appearance, opened and discharged, and had continued to discharge almost steadily for twelve years. Several small abscesses had formed in the same region, at different times, and had discharged and healed. On examination he found an opening which gave exit to pus from the left buttock at about the junction of the coccyx with the sacrum, and through it a probe could be passed to the median line, and from there to the lower portion of the sacrum and the first bone of the coccyx. There were two other openings, from one of which he discovered hair protruding, and drew out a small quantity, and from the other he extracted two hairs, between two and three inches in length. The sinus was laid open freely and the sac dissected out, which had two prolongations under the left buttock, about two inches apart. The sac contained a ball of hair. The wound was left to granulate and the patient was doing well.

FRACTURE OF THE INVOLUCRUM OF A FRACTURE.

Dr. Mason also related a case having the following history: In July last a man was admitted to Roosevelt Hospital with a compound comminuted fracture of the leg. The case progressed favorably. About two weeks ago all the openings had closed except one through which a probe could be passed, and a piece of dead bone detected. A small incision was made; a piece of necrosed bone about two inches in length removed. The tibia was surrounded, apparently, by a strong involucrum. The patient was able to go about the wards perfectly well, and a few days afterwards took a pass and went out for the day. On the following day the House Surgeon noticed a false point of motion at the seat of fracture. The man denied having received any injury, but three days subsequently he was suffering from an acute attack of gonorrhœa. The special point of interest was fracture of the involucrum of fractnre, which he had not before seen. The Society then adjourned.

Correspondence.

ABUSE OF MEDICAL CHARITIES.

To the Editor of The Medical Record.

Dear Sir:—While it is not my purpose to reply fully to the communication of Dr. F. R. Sturgis in your issue of April 27th, I cannot but protest against his statement that "the surgeon either in public or private practice is not bound to make any inquiry as to previous physicians." While I believe that we have a perfect right to treat all office patients who seek our advice without regard to their previous advisers, I am certain that it is our duty, when called upon to visit a strange patient at the house, to satisfy ourselves that no other physician is in attendance. The reason for this distinction between office patients and others is obvious; for in the one case every physician considers himself dismissed the moment a patient ceases to visit him, while on the other he is still the attending physician until notified to cease his visits, or until he does so voluntarily. But the main points of my first communication were, *first*, that the attending physicians and surgeons at public institutions, as well as those in

private practice, should not criticise the previous treatment of patients seeking their advice; and *second*, that patients able to pay a medical attendant should not be treated at public institutions. Those points I hold to be incontrovertible, and to their observance we could, I am sure, look forward with confidence to the total abolition of the much discussed and flagrant "dispensary abuses as they now exist." And now, if I may further trespass upon your space, permit me a few words upon the other matter alluded to in Dr. Sturgis's communication. I refer to the omission of names from my first letter. My reasons for doing so were, it seems to me, quite valid. In the first place I did not wish *one* to suffer for many, for although the instance I mentioned was a flagrant one, yet offences of a similiar nature have occurred in other institutions under other hands, and it was the assumption of censorship which I wished to attack, and the treatment of well-to-do patients at public institutions which I wished to expose, and not the holding up to view of the mistake of one physician, which led me to enter upon the discussion of the subject. There is one point, however, which I am willing to admit is perhaps unjust in thus witholding names, and it is this, it does not give the physicians implicated an opportunity to explain any possible mistakes. It is with a view to remove this one hardship, Mr. Editor, that I shall to-day inform the gentleman to whom I alluded that it is his name which I omitted and give him an opportunity to reply and defend his action as publicly as it has been attacked.

I remain very truly yours,

S. S. JONES.

NEW YORK, April 28, 1880.]

BOVINE DISEASE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Ever since the introduction of bovine or animal vaccination in the United States, the only source of supply has been a continued reproduction from the original furnished by an epidemic of the bovine disease among cattle in Beaugency, France.

The reason for this is because of the extreme rarity of such outbreaks, and the failure of its detection when so occurring.

As my memory serves me, I recollect of but one authenticated case of the bovine disease in this country, and that was reported by the late Dr. Loines as having occurred in Cayuga County in the year 1869.

From this he gathered the material for renewing that stock of vaccine which, propagated by "arm to arm" vaccination, constituted the virus which he so successfully cultivated for many years.

By an accidental circumstance I have been recently enabled to see and study an outbreak of the disease among a herd of milk cows on a farm located in the southern part of this State.

The occasion of its discovery, and the tests and results of its application to the arms of infants, are, I believe, of sufficient interest to deserve a more careful description than this short note will allow, and, with your permission, I will be glad, in a future letter, to add what intelligence my investigations may glean to the already existing literature of vaccinia.

Yours truly,

S. S. BOGERT, M.D.

EASTERN DISPENSARY, NEW YORK, April 24, 1880.

INCOMPLETE OUTWARD DISLOCATION OF THE ELBOW.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—An article in the MEDICAL RECORD of April 10, 1880, brings to mind a case of my own.

On Sunday, May 13, 1877, Ira W——, aged about 65, of intemperate habits, while in liquor, on driving rapidly around a corner in a heavy wood-wagon, was overturned, but remembers no particulars. On my arrival an hour later, the right arm was flexed fifteen to twenty degrees, pronation was very marked, the internal condyle very prominent, the olecranon somewhat so, while it, with the whole forearm, seemed carried to the right or outward.

On palpation, all the articular surface of the humerus could be detected under the finger, but the articulating surface of the ulna lay upon the outer condyle. I examined very carefully and repeatedly, hesitating, at first, to diagnose so rare a form of dislocation.

Taking advantage of the intoxicated state of the patient, an attempt was made to replace the parts without ether—it was not successful; and upon giving ether some considerable difficulty was experienced in putting the radius in position and retaining it there; reduction was finally successful, and in a week, contrary to orders, of course, the old man was driving his team again, and recovered remarkably, much to my surprise. He now cannot completely extend the arm, and complains of weakness in it, but has no other difficulty with it whatever.

S. R. TOWNE, M.D.

ENFIELD, ILL.

THE TREATMENT OF EMPYEMA BY SIMPLE INCISION.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In reading an article published in No. 491 of the RECORD, I see that a gentleman in Chateaugay, N. Y., Dr. A. M. Phelps, advocates the use of some apparatus of his own devising for the cure of empyema. As I published four cases some time ago in the RECORD, all cured by simple incision and drainage, let me add two more. One was a girl of ten years of age, who was brought to the office with a temperature of 104½°, and a pulse of 120. She was operated upon in the office. We first gave her a good drink of brandy, and then made an incision in the axilla a little superior and anterior to the lower angle of the scapula. I next inserted a drainage-tube eight inches into the pleural cavity, leaving some four inches outside. I packed oakum over the tube after fastening it in place. The tube was fenestrated. Now, what I want to point out is this, that, even if the air does rush in and out when the oakum is removed, it does not do so when it is in place; and I hold that, in my experience, a valvular tube and two counter-incisions are not necessary to insure a cure, and that without deformity of the chest-wall on the affected side. The little girl was operated upon three months ago, the tube is nearly all forced out by the pleural surfaces uniting, and on measuring the chest I find that there is only half an inch of difference between the two sides. I hope to correct this by suitable exercise. My other case was that of a gentleman who was cured before I read Dr. Phelps's article, and he is not now in New York; but he had no perceptible deformity, nor am I afraid of any bad result in the future. To conclude then, I think anything which renders this operation more complicated deters the

profession from performing it, and loss of life results. I am sure that the results are as perfect as any one could have, and the apparatus are required save calomel, a drainage tube, and a sharp pointed bistoury. I think an opening large enough to admit the forefinger all that is required. I do not write this for the purpose of controversy, nor will I explain why I think the calomel acts as a suitable valve, but leave all this to the decision of any one who chances to read this letter.

MARTIN BURKE, M.D.

137 LEXINGTON AVENUE.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 25 to May 1, 1880.

MOORE, JOHN, Major and Surgeon. The leave of absence granted him July 24, 1879, from A. G. O., extended two months. S. O. 90, A. G. O., April 23, 1880.

HEGER, A., Major and Surgeon, assigned to duty as Post Surgeon at Fort Clark, Tex. S. O. 78. Dept. of Texas, April 24, 1880.

GODDARD, C. E., Major and Surgeon, when relieved by Asst. Surgeon Waters, to comply with S. O. 74, C. S., A. G. O., in his case. S. O. 78, C. S., Dept. of Texas.

WATERS, W. E., Capt. and Asst. Surgeon, when relieved by Surgeon Heger, to report to Comdg. officer Ft McKavett, Tex., for duty as Post Surgeon, relieving Surgeon C. E. Goddard. S. O. 78, C. S., Dept. of Texas.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 1, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
April 24, 1880.	0	2	58	7	103	32	0	0
May 1, 1880.	0	7	53	9	96	41	0	0

SWAN'S ILLUSTRATIONS OF THE COMPARATIVE ANATOMY OF THE NERVOUS SYSTEM.—Prof. B. G. Wilder, of Ithaca, N. Y., desires to learn where a copy of this work can be consulted.

THE DANGER OF CHLOROFORM.—Dr. C. W. Robbins, of Milwaukee, Wis., writes: "I wish to call attention to the very dangerous method of administering chloroform advocated by your Camden, S. C., correspondent (see RECORD, April 17, 1880). The majority of the profession are opposed to the giving of chloroform in any manner, but to give it as advised by S. B. is certainly a method that cannot be too severely condemned.

"Would it not be well if some action could be taken by the Am. Medical Association looking to the entire abolishment of chloroform as an anæsthetic?

"Something like the following might be acted upon:

"1. *Resolved*, That it has become an established fact that chloroform is an unsafe anæsthetic, being ten times as dangerous as ether.

"2. *Resolved*, That this Association do hereby condemn the use of chloroform as an anæsthetic.

"A somewhat curious statement is made by Dr Peaslee in his report before the N. Y. Pathological Society (see RECORD, same date as above). He says (Case III.) the aorta was slightly dilated, being as large as the eye of a goose. Now I don't know what kind of geese you have in New York but I do know that a well bred Western goose would be ashamed to lay an egg that did not measure at least 2½ inches transverse diameter, by 3½ inches from pole to pole. If the specimen shown by the doctor was of these dimensions, the aorta must have been enormously dilated."

THE CARTWRIGHT LECTURES.—Prof. Roberts Bartholow has accepted the invitation of the Councillors of the Alumni Association of the Coll of Phys and Surgs. to deliver the first course of lectures, on the Cartwright foundation, during the session of 1880-81. This course of lectures was founded by the late Benjamin Cartwright, of Newark, N. J. His bequest of $10,000 to the Alumni Association of the College of Physicians and Surgeons was divided into sums of $5,000 — one for the purpose of founding a prize, to be known as the "Cartwright prize," for the best essay, containing original work, on some subject connected with the art of medicine or surgery, to be open only to the competition of the Alumni of the College of Phys. and Surgs. The other to establish an annual course of Lectures, to be known as the "Cartwright Lectures," and to be under the control of the Alumni Association.

These provisions of Mr. Cartwright's bequest will both be fulfilled during the coming session. It has been decided to alternate the "Cartwright Prize" with the prize of the Association, so that there may be an annual prize of $500 offered. The conditions of the "Cartwright prize" of $500 are already announced.

AMERICAN MEDICAL ASSOCIATION.—Dr. Walter R. Gillette, Secretary of Committee of Arrangements of the American Medical Association, writes: "Will you please publish in the next issue of your journal a request that the secretaries of the different sections of the American Medical Association send the abstracts and titles of the papers received by them from members of the profession proposing to present them at the coming meeting of the Association at once to Prof. T. Gaillard Thomas, 294 Fifth Av., New York, Chairman of the Committee of Arrangements? The object of this notification being sent through the journals to the secretaries is that gentlemen who have not yet sent in their papers may do so without delay."

A MINISTER OF PUBLIC HEALTH.—The *Lancet* devotes a leader to urging the new Government to appoint a Minister of Public Health. The President of the Local Government Board, it is argued, ought to be made a cabinet officer, and the sanitary work of the department under his charge be more centralized and efficiently carried out.

THE AMERICAN JOURNAL OF MICROSCOPY is a very excellent periodical. It is hardly fair, however, for it to take our editorials and use them, slightly modified, as its own "current notes." Such practice may impart interest to the "notes," but it is not considered honest journalism.

An Epidemic of Pneumonia exists in Chicago. It is of average severity.

Dr. Wm. B. Carpenter, of London, is expected to visit this country some time during the coming summer.

A French Hospital in New York.—The French citizens of this city propose to hold a festival in June, the proceeds to go toward the erection of a French Hospital.

Nerve-stretching for Sciatica.—As the success in the treatment of sciatica by nerve-stretching has not yet been great, a case reported to the *Lancet* by Mr. Manle Richardson may be of interest. The patient was a blacksmith, aged forty-five, who had suffered from sciatica for nine months. Blisters, the actual cautery, and galvanism had done no good. He finally consented to have the sciatic nerve stretched. This was done antiseptically. The nerve being exposed, hooked out by the fingers and pulled on until a degree of relaxation was obtained, the limbs being kept extended at the time. A good deal of suppuration followed, but there had been no return of the paroxysms at the date of the report, three weeks after the operation.

Spasmodic Croup—Convulsions — Spinal Hemiplegia.—Dr. Henry Jacob, of Altoona, Pa., sends us the following case: The doctor was summoned to a child, aged two years, suffering from spasmodic croup. An emetic relieved it, and having prescribed an anodyne he left the case. The next night he was called again, and found that the child had had the croup again, and was then in general convulsions. A hot bath relieved the symptoms, and having prescribed potas. bromide to be given every three hours, he took his leave. He was again summoned toward morning, however, and found that the child had had another convulsion. This had been controlled, but the left leg was completely paralyzed. After waiting two days, ergot and iodide of potash were given three times daily; at the end of three days the paralysis had disappeared.

Medical Society of New Jersey.—The Annual Meeting of the Medical Society of New Jersey will be held in the lecture-room of physics in the School of Science Building, Princeton, on Tuesday and Wednesday, May 25 and 26, 1880, commencing at 7.30 P.M., on Tuesday.

Oxalate of Cerium.—Dr. F. A. Castle, of this city, writes: "Your reporter of the recent meeting of the New York Therapeutical Society (see Medical Record, p. 493) is in error in saying that I found Wyeth's preparation of cerium oxalate useless in one of the cases referred to. I did not mention whose preparation it was that failed, nor do I know; and I would be very loth to make so unfavorable a comparison of any manufacturer's wares without better evidence than could be furnished by one trial."

(We are also advised by John Wyeth & Brother that they have never made, either in large or small quantities, oxalate of cerium, and have no elixir combination with that chemical as one of its constituents.—Ed.)

Physical Examination of Persons Wishing to be Married.—The Société de Médicine Publique et d'Hygiène Professionelle have been discussing the proposition of Dr. Bourgeois that the State should take measures to prevent the marriage of individuals suffering from hereditary diseases. By such action it is claimed that phthisis, epilepsy, insanity and other diseases, would soon be exterminated.

Dr. Bourgeois would have every candidate for wedlock submit to a physical examination and would allow marriage only to those who obtained a medical license. A difference of twenty-five years should be a bar to marriage between two parties, provided one of them was over sixty. A committee appointed to consider the above project did not report favorably.

The National Board of Health held its annual meeting at Washington during the present week. The conference of health-board officers and those interested in the collection of vital statistics took place at the same time.

International Sanitary Conference.—The joint resolution authorizing the President to call an International sanitary conference has passed the Senate.

The Bill to Regulate the Practice of Medicine in Massachusetts has failed to pass.

The Bill to Establish a State Board of Health in New York has, at date of writing, been ordered to a third reading, and its passage is now ensured.

The Bill Authorizing the Reception and treatment in Bellevue Hospital of persons who do not reside in New York, thus furnishing more clinical material for the colleges, has passed the State Assembly.

A Bill to Secure Registration of births in New York has also passed the Assembly.

An Amendment to the law preventing abortions has passed the State Senate.

Royal College of Surgeons, Ireland.—Dr. Benj D. McDowel has been elected examiner in this college, in place of the late Mr. O'Leary, M.P.

Edison's Polyform.—This is a new patent medicine, discovered, it is said, by Edison, and widely advertised as representing what his great genius can do when applied to therapeutics. It is nothing but an ordinary liniment made up chiefly of chloroform, chloral, camphor, and aconite. Small bottles of this cheap and well-known mixture are sold for $1.50. It is a pitiable fact that Mr. Edison should allow his name to endorse a nostrum which is no better than half a dozen other liniments, and which is sold at an exorbitant price.

Microscopic Examination of the Blood in the Penis of the Living Person.—A novel method of examining the circulation of the blood under the microscope is described and pictured by Dr. F. B. Tiffany, in the *St. Louis Medical and Surgical Journal*. The prepuce is drawn out, put under a clamp which makes it tense, and then held under the stage of the microscope. The results are said to be very satisfactory, the mucous membrane, submucous, and areolar tissues being beautifully seen.

Surgeons and Patent-rights.—Dr. C. R. Parke, of Bloomington, Ill., comes to the front in the *St. Louis Medical and Surgical Journal*, defending the rights of surgeons to patent their own inventions, and saying something in defence of his own metallic splint for fractured femur. He concludes: "To be a *medical gentleman* is all the code we need; copyrights and patent-rights should be placed on the same footing, both sanctioned or both abolished by the American Medical Association."

The Home for Convalescents, on West One Hundred and Twenty-seventh Street, which a number of prominent ladies and gentlemen have been active in establishing, was opened on the 30th ult.

Answer to Correspondent.

The Origin and Description of the Mad Stone.—Dr A. L. Cuckow: "Can you or some of your readers, inform me of the origin and composition of the 'mad-stone,' in the anti-hydrophobic efficacy of which the rural secular press has such firm faith? The superstition concerning its virtues, as I believe, most prevails in the South and Southwest, but I can nowhere find a description of it. I have a vague impression of hearing that it is an intestinal concretion like the bezoar, but cannot verify my recollection."

[We referred the question to Prof. Charles Rice, of this city, who sends us the following interesting reply.—Ed.]

The fable of the "Mad Stone" may be traced back to the earlier period of the middle age—a time when medical men first began to leave the old beaten track of therapeutics laid down by the earlier Greek and Arabian physicians, and to study and observe nature for themselves. Yet their steps on this new ground were not simple, and rational explanations of natural phenomena, or of newly-observed facts, were so difficult for them, that superstition, for a long time afterward, found a fruitful field for development. Not only were new facts discovered which were unintelligible, and were, therefore, often misconstrued, but sometimes there were properties and virtues assigned to newly discovered substances, which were in direct proportion to the rarity of their occurrence, or the singularity of their appearance. Among such rare substances may be counted the peculiar concretions which are sometimes found in some of the inner organs of animals, particularly those concretions which consist of mineral or inorganic matter. There can be no doubt that such concretions must have been known and observed from the earliest times, yet, so far as I am aware, no written record of the observation of any such concretions exists in the ancient classical literature, nor have I met with any account of them in oriental literature before the thirteenth century A.D. The first notice that I am aware of, exists in the work of Ibn Baithâr (died 1248 A.D.),* "On Simples," who gives a detailed, but somewhat confused account of *bâdzahr*, which is our present word *bezoar*, and is, without question, the substance forming the subject of the above query. Ibn Baithâr, as he usually does, gives extracts from the works of his predecessors, and, among others, cites a passage from Aristotle, which, however, must be a mistake, since the contents of the passage are of such a nature that they could not have been known at the time of Aristotle. At the end of the article he quotes Ibn Djâmi', who says that "the *animal* bezoar, or that which is found in the deer's heart, is better than the other kinds." He fails, however, to give a description of the latter, or to mention any vegetable or other bezoars.†

Ibn Baithâr's description already characterizes the bezoar stone as being endowed with wonderful power as an antidote to poison, and ascribes to it the faculty of "attracting the poison of venomous animals."

The word *bezoar*, which has sometimes been written *bezoard*, *bezoart*, *bezoer*, etc., is originally derived from the Persian *pâd-zehr*, meaning "the wind or the breeze of poison," in the sense of "the wafting away of the poison," and therefore "an antidote to poison." The Persian word became *bâd-zhar* in classic Arabic, *bedzoar* in modern Arabic, and *bâdzehr* or *panzehr* in Turkish.

I have stated above, that the term *bezoar*, or rather *bâd-zahar*, in the meaning of "a concretion found in animal organs," did not occur, so far as I am aware of, in any published work written before Ibn Baithâr's time. Yet the word was used long before him by Arabic and Persian authors in its original sense—"antidote to poison." Since Ibn Baithâr himself quotes from works of authors who had preceded him, the word must have acquired its double sense a considerable time before him. After the term had once been misapplied to "bezoar-stones," and the notion of the efficacy of the latter, as antidotes to poison had once spread, the fable—as it happened with many other similar ones—took a firm hold among the ignorant classes, being handed down from one generation to another as a priceless family prescription, sometimes even accompanied by a veritable family bezoar-stone. The claims which were made for these stones, centuries ago, may, even in our days, still be read in modern literature, and it is really surprising with what unshaken confidence even some well educated persons will adhere to a firm belief in their efficacy.‡ These mad-stones are, in our days, principally used as a supposed infallible remedy for the bite of mad dogs, and naturally every application of such a stone to a dog bite, even if the latter would have been of itself harmless, is scored as an additional victory for the stone.

The subject scarcely deserves a more detailed treatment, except, perhaps, at the hands of those who wish to write a history of superstition or of "sympathetic cures." A large amount of literature is at their disposal in the works of the earlier writers on materia medica, such as Garcia ab Orta, Acosta, Bontius, Clusius, Nicolaus, Monardes, and many others.

CHARLES RICE.

NEW YORK, May 8, 1880.

BOOKS RECEIVED.

POST-MORTEM EXAMINATIONS. By Prof. R. VIRCHOW. Translated from Second German Edition by Dr. T. P. Smith. Philadelphia: Presley Blakiston, 1880.

SEA-AIR AND SEA-BATHING. By JOHN H. PACKARD, M.D. Philadelphia: Presley Blakiston, 1880.

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* *Al-Ghâfiqî min-al-rukâb al-bârjân wa al-ngkâzjath*— = The Collection of the Simples among Mediæval Arts and Accidents. Published in Arabic at Cairo, 1874, in four parts, small folio, 174 pages. The arrangement of its alphabetical, and the article referred to is under the letter *b*. The work was translated by Sontheimer, *Zusammenstellung der einfachen Heil- und Nahrungsmittel*, 2 vols. Stuttgart, 1839–42 (*Cotarnus*, see vol. I. p. 119), but the translation is frequently incorrect. At present an improved French translation is being published by Leclerc, the first part form my desk, xxiii of the work entitled: *Notices et Extraits des Manuscrits de la Bibliothèque Nationale*." Paris, 1877. (*Bezoar*, see on page 198.)

† The *mad-stone*, or bezoar obtained from animals, must not be confounded with the so-called *fossil stones*, or Lapides Judaici, which are described by Hieronymus Tragus (*De Stirpium Historia*, Strasbury, 1532, p. 514, under Artemisia), by J. B. Ionthus in (*Cornarium Historia*, under Artemisia), and later writers. These fossil stones were the hardened and dead remains of the roots of *Artemisia rupestris*, L. These carbonized roots, which were also named "Carbones Artemisiæ," were supposed, if dug up before sunrise or at noon on St. John's day, and worn as an amulet on the chest, to be an infallible remedy for epilepsy.

‡ This form is original Persian *pâd-zahr*, and means "protection from poison," *pâd* being derived from the Sanskrit root *pâ* (*pâtr*, "to protect."

‡ In a correspondent of the *Scientific American* for 1880, Mr. John Smith, is to be believed, it would seem that the Indians also had faith in these stones. He states that he was bitten by a mad dog both his legs twelve years previously, and having gone to a "mad-stone" that is having gone to a person who was known to possess a mad-stone, he has had no trouble since. He says that he himself has a mad-stone, "which will cure a bee sting, when one can hear his breath." He also says that the Indians of the plains informed him that the mad-stone is obtained from the rennet of the deer, and that its size is in proportion to that of the animal.

Original Lectures.

THE ERUPTIVE FEVERS.

LECTURES DELIVERED

By ALONZO CLARK, M.D., LL.D.,

PROFESSOR OF PRINCIPLES AND PRACTICE OF MEDICINE, COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

LECTURE III.—SCARLET FEVER.

The next topic that will engage our attention is scarlet fever, and I have a curious fact to disclose to you in regard to its prevalence. I have already told you that we have bills of mortality running back to 1804, regularly kept. The disease of which each person dies is recorded, and the number of cases is easily summed up. From 1804 to 1828 the number of deaths from scarlet fever occurring in this city was very small, the whole number being only 141. Then came a sudden invasion of the disease. In 1829 there were 188 deaths—a number in that year greatly exceeding the whole number of deaths for the twenty-five preceding years. And from that time until now it has held on at a pretty high rate of mortality year by year. For the next year, 1830, the number of deaths from scarlet fever was 246; for the succeeding years, in their order, 258; 221; 179; 418; 174; 202; 579; 257; 158; 391; 416; 223; 224; 63—that was in 1844, which is a small number for that period —115; 142; 93; and so on. And that large mortality has continued to the present time. In 1877 there were 815 deaths from scarlet fever. Well, of course, you expect some increase in the number of deaths from the increase in the population, and in the advancing years and accumulating people it will be necessary to make an average—an equality of deaths proportioned to the number of inhabitants. But even making that reckoning, the scarlet fever mortality has increased a good deal faster than the population of New York has increased.

Scarlet fever has its several periods, as small-pox has. It has its period of incubation; is strictly a contagious disease. The poison dwells in the system a certain length of time before it manifests itself in symptoms. Then, it has its invasion; it has its eruption; its desquamation, and its sequelæ.

In regard to the period of incubation of scarlet fever, it seems to be very variable. I have acquired a considerable number of facts bearing upon that point. The one that I most commonly cite is that of a family in Woodstock, Vermont. When I was lecturing at the Vermont Medical College, I saw several children sick in the family of a man named Cobb. The history was this: There had been no scarlet fever in the town of Woodstock for a great many months, and this man Cobb took his wife and three children on a visit twelve miles from Woodstock in the town of Plymouth. When he reached his friend's house he found scarlet fever in the family, but he allowed his family to remain there two nights, the night of their arrival and the night following. He entered this house on the evening of the 16th of March. He returned home, and one of the children that had made this visit with him was taken sick with scarlet fever on the evening of the 19th—three days after the exposure. Another was taken on the 20th, and then the cases that followed seemed to have been propagated from those that made this visit, and they occurred at about three day's interval. But several children, five in number, were all taken down with the disease. The infant, which was one of the visitors at Plymouth, the last of all. The two sons that remained at home were attacked, one of them on the 23d, and the other on the 26th. They must have taken it from those children that had it developed in them from the contagion received at Plymouth, and in them the period was three days in one and six days in the other, or three days in both, depending upon how the second of the boys who remained at home took his disease. It is reported in Murchison's that it is developed in symptoms in very few hours.

I have another case derived from the same town, that is instructive on the other side of the question. A girl, a daughter of a man in Woodstock, had been in one of the factories of New Hampshire at work, and boarded in a family where scarlet fever broke out. Pretty soon after scarlet fever appeared in this family she returned home, and nine days after she left the house she had scarlet fever, and she communicated it to two of her brothers, who took it, each four days after the other. Four days after the eruption appeared in this young woman, it appeared in one of her brothers; and four days after that in the other of her brothers. Now, we cannot say whether this was an incubation in the last of four or eight days, for we do not know whether he took it from his brother or from his sister. Four days is not an uncommon period of incubation, and then it is reported to run on to fifteen, or even thirty days, but this longer period I think requires new investigation. I doubt whether it will dwell in the system so long a time, and then, there is a chance for other exposures when the time is protracted. It is pretty clear then, that it has a varying incubation. You may say, perhaps for safety, from a few hours to fifteen days.

With reference to the invasion, that is a short period. The period of invasion of small-pox, as I told you, is two full days, and pretty regularly. The period of invasion of scarlet fever, that is the fever before the eruption, sometimes is not over six or seven hours, and it rarely exceeds twenty-four. The invasion is various. In a few children it is attended by convulsions, but in much the greater number it is a febrile action—not necessarily preceded by a chill, or perhaps even commonly. It is attended with a great deal of vomiting. A febrile action attended by vomiting in a child may always be suspected, and all the more if any exposure is known. The vomiting, I cannot say is absolutely constant, but it occurs frequently enough to be a very valuable symptom in diagnosis. The eruption then occurs, say from seven to twenty-four hours, after the invasion, and it appears first upon the forehead and neck, and just the upper part of the chest. It has a progress downward, so that it requires in some instances nearly two days to reach the feet. It is apt to affect the whole body. The different parts of it successfully. I have seen cases of scarlet fever that broke out first upon the limbs, but they are not very common. I have seen them also in which the eruption was general at once, but the rule is as I have stated to you, that it appears first upon the upper part of the body—on the neck, head and face—and advances downward. The peculiar kind of eruption is that you see on this plate, a reddening of the whole surface affected. And yet it begins in patches. The patches spread until one reaches another, and the eruption becomes general. There is with the eruption, not infrequently, a little blister; several together called sudamina; little elevations that will suggest to you the

ules of glass having been broken and some fine particles of it having been left on the skin. The eruption varies, however, so much that you will often be puzzled to know whether you have got scarlet fever to treat or not. In some instances it is the merest blush, you can hardly say there is anything. In other instances it is well marked, as in the figure that I have shown you. And in addition to that, in certain cases where the eruption is full, there will appear a little œdema, a little swelling of the face, a little swelling of the neck, and of the several parts of the body successively invaded by the eruption. The eruption, however, is not the whole of the disease.

Scarlet fever has been divided into scarlatina simplex, scarlatina anginosa, and scarlatina maligna. It is not a very good division, but as it is generally adopted I will not depart from it.

Inflamed fauces make a part of the disease. Perhaps I can make you appreciate the value of this fact by a case. I was called over to Hoboken to see a child sick with scarlet fever, and when I got there I found the eruption clear enough—perfectly red all over the body. It had not observed, however, the order of beginning at the upper part of the body and spreading downward. I looked into the throat; it was as clean and natural as it ever is in a perfectly healthy child. I said to the doctor, "You have not a clear case of scarlet fever here. That cannot be scarlet fever; there is no sore throat." It turned out in a couple of days that the eruption died out. There was not much itching, and yet it was urticaria with as full an eruption as scarlet fever ever has. You observe my diagnosis was based upon absence of sore throat. I could not have distinguished between that eruption and that of scarlet fever, especially as scarlet fever eruption sometimes occurs upon the whole of the body at the same time. There is always some inflammation of the throat in scarlet fever. The tonsils enlarged moderately, or considerably enlarged, as the case may be; the velum palati red and somewhat swollen. It may not be to an extent to give great inconvenience, but it is more certain to occur than an appreciable eruption. Then, as I am now speaking of the lesions, I may as well switch off and say to you that there are no lesions except these and sometimes swelling of the Peyerian glands in the small intestine, with a little tendency to elevation of the solitary glands. The rest is all visible during life, excepting the change in the blood, which is typhoid in its character.

In some instances the affection of the throat comes to be a very grave one. Indeed, you may say a fatal one, and to such cases the name scarlatina anginosa is applied. You will find sloughing of the throat in certain bad cases; the lymphatic glands that are near the surface will become swollen, sometimes suppurate. Sometimes there is hemorrhage into the swollen part. Such are always very bad cases.

Then as to the scarlatina maligna, the term partly applied to the "head" cases, and the head symptoms are not unfrequently preceded by convulsions. The convulsions in scarlet fever I think depend very much upon the condition of the blood in relation to its being purified of the albumen. My impression is, without having investigated the matter so thoroughly as to speak with authority, that the convulsive cases of scarlet fever are cases of albuminuria and uræmia, and yet this uræmia manifests itself in another way, by a comatose condition.

You will occasionally see children in whom the eruption is far from being a bright red, like a boiled lobster, as it is sometimes said, but it will be almost a venous hue, a very dark hue. Then there may be hemorrhagic forms of the eruption, in which the skin will be darkened by ecchymosis. These are always bad cases. The dark eruptions are bad indications, and those with that are apt to go the head symptoms that I referred to. The child will sleep a great deal, will start up suddenly from sleep and scream, as in one form of meningitis; then fall back and be stupid, or perhaps be comatose. Those cases die early after the manifestation of these symptoms, and, as I have said, I think from uræmia. That is called scarlatina maligna.

There is another form of sore throat that is of a good deal of importance. I have seen two children in the same family die of that affection. It is a diphtheria engrafted upon the sore throat of scarlet fever. That condition has been known much longer than the term diphtheria has been used. That there can be a membranous inflammation of the throat I say has been long known, and that membrane forming up on the fauces is inclined to run downward into the air-passages, and produce just the same symptoms as croup. These are the complications that occur in this disease, and the sore throat is manifest as early as the eruption, or earlier. Indeed in scarlet fever and measles the eruption can be noticed upon the roof of the mouth before it appears on the surface of the body.

With reference to the duration of the eruption, it usually lasts upon the whole body one week, six to seven days, with or without the œdema that I have named. And the scarlet fever sore throat takes about the same time; or, if it is a bad sore throat it will continue a good deal longer. A few days after the subsidence of the eruption there will occur a desquamation. It will begin, perhaps, about two days after the eruption has ceased, beginning first upon the part of the body upon which the eruption first manifested itself, and descending, little scaly exfoliations of the old epidermis. The action in the eruption of scarlet fever is sufficiently inflammatory to kill the epidermis, and as it dries up and a new epidermis forms underneath it, it is pushed off. Occasionally the thick epidermis of the fingers, particularly of the palmar surface of the fingers, will exfoliate in one body, and it is said that the whole of the epidermis of the finger may exfoliate, appearing like the finger of a glove. I have never seen that, but I have seen the exfoliation of long ribbons on the palmar surface of the fingers, where the epidermis is thick and strong. In that respect scarlet fever differs from measles, the whole of the exfoliation in measles being of a fine, branny matter. You will always see this exfoliation of the epidermis if the child is not sweating a good deal. If he does sweat you will hardly see it; the sweat will cause the scales to adhere to the sheets of the bed in which he lies, and it may be, therefore, in a sense invisible.

There is, after scarlet fever, a very grave sequence, and that it is a part of the disease, I am led to suppose, because it is pretty uniform in the time of its appearance. About two weeks after the eruption has ceased, the child, running about the room, begins to be a little swollen under the eyes. The face becomes œdematous, the feet become swollen,—indeed, there is a general moderate œdema. The child becomes very pale, but does not lose his vigor. He does not lose his fondness for play at once, but will run about; will run out of doors if you will let him. But after a while he may have a convulsion—a series of them. This œdema may last a very variable time, from a week

to three, four, five months. But the greatest danger is during the first two weeks. I have tried, in certain instances, to confine the child to a temperature of 72° after scarlet fever, until the period of this sequela has passed, and I have not succeeded in protecting it. It does not occur in a majority of cases. It is rather an exceptional occurrence, but as it occurs at two weeks it would seem to have a definite relation to the eruptive disease.

The mortality of scarlet fever is large. Different epidemics differ very much in their severity. We have had epidemics that would run on for a year or two in which there were very few deaths, not more than one in twenty or thirty, and I have heard a clergyman preach who left that morning, when he came to church, three dead children in his house. Some epidemics are fatal to about one-half of those who are attacked, and we never know in the beginning of an epidemic whether it is going to be particularly fatal or not. Some physicians have encouraged their patients to expose their children to scarlet fever in the mild epidemics, to insure, as they say, a mild run of the fever. I do not know whether it is wise or not, because a great many children escape scarlet fever altogether. Hundreds of mothers have scarlet fever when their children have it, never having had it before.

With reference to the management of scarlet fever there is but little to be said. We cannot do much for it. If it be a mild case it will run a gentle course, and you have very little to do. If it be a bad case, it will have its bad features in spite of the best that you can do for it. I have sometimes thought that in the bad cases the best thing to do was just to let the child lie and take a certain amount of champagne, the quantity to be controlled by the pulse, and try nothing else.

In mild cases of scarlet fever, when the eruption appears, the fever diminishes in severity; in severe cases it increases, and the temperature may go up to 106°, 107°, and it is reported to have reached 111°. Of course such are bad cases. When adults have scarlet fever they are very apt to have little or no eruption, but the febrile movement and the sore throat. The disease is a great deal more fatal in children than it is in grown-up persons. Grown-up persons usually bear it pretty well. Now and then you will hear of a person of mature age dying of it, but the greater number of them recover.

The redness of the eruption is produced by the congestion, an active congestion of the capillaries of the skin. You know they rise up in knuckles coming up and going directly down again, and it is these enlarged knuckles of the capillaries that make the separate points of the scarlet fever eruption. As I said to you, it is almost an inflammation, for there is frequently some œdematous effusion, and the cuticle is destroyed by the inflammatory action, so that it exfoliates in the manner that I have described.

There is a point of considerable importance which I omitted to state, and that is the effect of the sore throat upon the hearing. The inflammation of the throat occasionally affects the tubes that communicate with the middle ear, and the inflammation extends to this particular part, the result of which is, frequently, a loss of the tympanum. I once saw a little ring of bone ulcerate away, carrying the tympanum with it—a ring of bone out of the bones of the head, just large enough to hold the attachment of the tympanum, and the tympanum was unbroken. Of course that took some time to be accomplished. But the tympanum is often broken, and the bones of the ear are not unfrequently lost. Dr. Pete, who for so many years had charge of the asylum for the deaf and dumb, wrote me a great many years ago for an explanation of the fact that in 1829 there was a very great increase in the number of deaf brought to that institution. The deafness was caused by scarlet fever, and he wanted to know what made scarlet fever so fatal to the hearing, and it is that that led me to read the statistics yesterday, showing that in 1829 more cases of scarlet fever occurred than from 1804 up to that time; and, of course, with an increased number of cases it would be reasonable to suppose that many of them were severe, and that the effect upon the hearing would be more markedly noticed. This is sometimes a complete deafness, which remains, of course, for life. Occasionally it is an impairment of the hearing of one ear, or of both ears.

I spoke to you of the period that elapses between the inception of the contagion and the development of symptoms. But another interesting point is, how long does the poison last in a person who has had scarlet fever. Very few observations have been made in regard to that. I have but one that is reliable, and that was in the practice of Dr. Cheeseman. He had a patient who had scarlet fever, and that patient had a little sister, I think younger than he. They were both children. The doctor told me that he had separated the two children; he had sent the well one to an aunt who had no young children in the house, and he wanted to know how long he should keep these two children apart—how soon the sister might visit her brother, having had a regular run of scarlet fever. I told him to keep them apart as long as he could, and he did succeed in keeping them separate for six weeks, and then the sister went down to the aunt's. The boy did not go home. The sister went down to the aunt's and took her dinner there, and the two children kissed each other, and in four days afterward the second child was attacked with scarlet fever. There was no other exposure known. If that observation was correct, why then here is a poison lingering in this person—in his clothes, in his hair, in his body, in his breath—we know not where, for a period of six weeks after he was attacked with the disease.

With reference to the treatment of this affection, I made a remark yesterday—and only one, because time did not allow me to make any more—that I often feel as if I may about as well not treat the case; to leave medicine entirely alone, and administer a moderate amount of champagne daily. I cannot tell you in an hour, it seems to me, the number of agents that are used for the sore throat. I have applied calomel; I have applied nitrate of silver; I have had children, when they were old enough, gargle with cold water frequently; and of these the cold water suits me best. But you cannot make use of it in a great many; they are not old enough to gargle. If there is a membranous production in the throat, I am very much attached to the spray of lime-water. Take the lime-water of the apothecary shop and put it into one of these little atomizers, or rather spray-producers; have the child's mouth opened, and throw the spray into the mouth when it is taking an inspiration, and let it go down into the fauces. If you can persuade him to let the mouth remain open with the tongue depressed, shower the fauces with the lime-water. What he will swallow will do no harm. In a case of regular diphtheria that I saw some time ago, this spray was used. The boy was old enough to have some dis-

eruption. It was used triply, and within about six or seven hours the membrane exfoliated and came off whole. The boy was entirely relieved for several hours, and then began to have heavy breathing again. The spray was again used, and another membrane was coughed up, and again came rest and easy breathing and a diminished frequency of pulse; and this was repeated five times, and every time followed by expectoration or discharge of a whole membrane. It was not in fragments. The sixth occurrence of this sort happened in the night, and the parents, though intelligent people, were persuaded that they could not stop the disease, and they allowed the boy to go on and suffocate. I do not know why the sixth formation might not have been discharged as well as the fifth, and if either of the physicians in attendance, Dr Thomas being one, had had his way, he would have had the administration continued as long as the boy had any breath, if the membrane formed anew.

This same lime-water, to be thrown upon the forming membrane, I believe is the most efficacious thing you may have. It does not apparently disintegrate the membrane, but it seems to produce a breaking-up, of its attachments to the living tissue.

We know a little something about the application of cold in scarlet fever. A physician of Connecticut, twenty years ago, came to this college and explained to me his treatment, and he was persuaded that it was more efficacious than any he had ever practised before, and it was to use the wet sheet. Strip the body naked and wring a sheet out of cold water and spread it over the child, and allow the body to be cooled partly by the cold sheet and partly by the evaporation of the fluid that was in it and on his body. It is perhaps five or six years since a very similar recommendation has come from Germany, and the bath is very much used in cases in which the temperature is very much elevated. The bath should be at a temperature of fifteen or twenty degrees below the temperature of the body, and the patient to remain in it until the thermometer indicates a marked fall in the temperature of his body. This does not seem in any instance to cause a recession of the eruption. The profession has been afraid of cold in scarlet fever, lest it should break up the regular course of the eruption; but it does not seem that that has been the result. And here, with reference to the recession of the eruption, as we have but few definite facts with regard to it, I will read to you those that I have quoted from Levy, in his treatment of the young soldiers of France. He says, in the first place, "A recession of the eruption does not occur in more than one in a hundred cases; ninety-nine will run the regular course. But he has collected twenty-one instances of recession, and he says that in fourteen of these twenty-one there was no effect that could be observed. It was merely a recession and an end of the disease.

In one, sudamina appeared the next day—little minute blisters; two had slight diarrhœa; one vomited the next day; in one varicella appeared two days after; in one tubercles followed at some distance of time subsequently. You see then that the recession is not so formidable a thing. The remark was, that we had been afraid of the application of cold, fearing the consequences of a recession of the eruption. But this Connecticut physician told me that he never saw it occur, and the German physicians seem to be trying the cold air upon their febrile eruptive diseases, so that we shall have more light on it before long, probably.

There may be recession and revival of the eruption, as in a case that occurred to Boston a few years ago, reported to me by the late Dr Bartlett. Scarlet fever and measles were both in one family. There were three children. One of these children, that is the third, had scarlet fever; two had had scarlet fever and measles before the third child had scarlet fever. The eruption continued two days and receded, and immediately the eruption of measles took its place, or rather the symptoms of measles, and the eruption in time. The measles ran its course, and on the subsidence of the measle eruption, the scarlet fever eruption came again, and lasted three days, making five days for its duration in all, with an interruption of over a week. These diseases, I may remark here, though it is a little out of place, seem to have great respect for one another. They do not run their course at the same time in the same person, but if the patient have been exposed to the contagion of both, the one that has precedence will run its course, and then the other will take its place.

I saw an instance of this that was quite remarkable. A child had diphtheria, and had been exposed to the poison of both scarlet fever and measles. The symptoms of scarlet fever appeared, and the membranous disease of the throat ceased. The scarlet fever ran its course, and measles appeared and ran its course. The child survived, and then the diphtheria appeared again and killed the child. It waited two weeks and more for these diseases to have their place and run their course, and then was revived; or, it was the result of the measles, which is not very common; or, it may have been a new infection, for that matter. I cannot say; but it did give place to scarlet fever and then to the measles, and then there was a renewal and a fatal result.

There are certain other things connected with this disease that require attention. When the scarlet fever eruption is of a black color, when there is hemorrhage under the cuticle, it is an evidence of a very bad state of the blood, a condition approaching that of scorbutus, and I have always advised just the same things that we would give in scorbutus—quinine and the vegetable acids pretty freely. When you have that immense swelling in the throat, and the swelling of the lymphatic glands outside, and a disposition to suppuration in these glands, and even hemorrhage, I do not know what to advise you to do. I have never done anything that did any good. Such cases I believe are predestined to be fatal.

I have something more hopeful to say regarding the sequela of which I spoke to you—the œdema. I was called into a family where there had been four children. Three of them had had scarlet fever. They went pretty easily through the scarlet fever. They were attacked with œdema and in a few days had convulsions and died, one after another. There was but one child left, and that had scarlet fever, and the father and mother desired the family physician to get assistance. When this œdema occurred I immediately advised that the child be put in a warm bath; that he be kept in a warm room after being taken out of the bath and kept in bed, and that enough clothes be kept upon him to keep him in a constant perspiration—not profuse, but a gentle perspiration day after day. You remember that there are casts and albumen in the urine in this condition. It is a kind of Bright's disease—an acute Bright's disease. The relations of the kidneys and skin are well known to you all. When the skin is chilled the kidneys act more vigorously; when the perspiration is

free upon the surface the kidneys seem to act in a much more gentle way, and this suggested to me, first, the use of those means that will keep up a constant but gentle perspiration upon the surface. This was done for many days and the child recovered. It had no convulsions. I suppose that under the circumstances a portion of the urea is eliminated by the skin; indeed, I know it is, for I have not unfrequently perceived in those who had disease of the kidneys the odor of urine on the surface of the body and in the breath of the patient. At any rate, in practice, this seems to be by much the more successful mode of treatment. The bowels should be kept free, not purged vigorously, but a laxative should be given as often as seems to be necessary, and all the rest consists in an unirritating food, what of drink the patient wants, and this perspiration kept up.

There are many children who will not consent to lie in bed under these circumstances; they do not *feel* sick. If you meet such patients your alternative would be to dress them heavily in flannel, to keep their feet well clothed, and let them run about in the room, the temperature of which is kept steadily at 74° or 75°. In that way you can keep up a perspiration.

In regard to the deafness, one of the sequelæ, I have nothing to say about it. It depends upon disorganization that is the result, secondarily of the inflammation of the throat, and that, I have told you, I have not been able to treat with any very marked benefit. The best of all the means is gargling where the child is old enough, with cold water, or cold carbonic acid water.

Original Communications.

INTESTINAL OBSTRUCTION FROM INTERNAL HERNIA—LAPAROTOMY.

By CHAS. K. BRIDDON, M.D.,

SURGEON TO THE PRESBYTERIAN HOSPITAL, NEW YORK.

The following history is reported by Dr. H. G. Wetmore, house-surgeon:

Wm. Beynton; aged 26; New York; single; plumber; March 27, 1880; father dead, cause unknown; mother living, but in poor health.

Six years ago patient had a complete oblique inguinal hernia on the right side, which has always been reducible, never inflamed or painful. According to patient's story it has not been down for four years. Had scarlet fever; never had peritonitis or an attack like the present one; never had typhoid fever; bowels have always been regular.

Last Wednesday morning (four days ago), had very severe pain in abdomen, about an inch and a half to right of and the same distance below umbilicus, which made him faint and caused him to vomit. In the afternoon had a natural passage from the bowels, with vomiting of contents of stomach. Vomiting continued throughout the night. Next morning a free discharge from the bowels, vomiting after eating. Since Thursday the vomited matter had been tinged with blood and was greenish, not stercoraceous; was stringy and mucous in character. Pain since attack began moderate and intermittent, controlled by morphine given hypodermically. Slight tenderness around umbilicus; tympanitis moderate. No fever, headache, or chill on admission.

March 29th, 2.30 P.M.—Face natural, slightly flushed, not anxious; pulse 120 per minute; temperature normal, tongue slightly coated; complains of pain around the umbilicus tympanitis; no tumor can be felt. Examination by the rectum reveals nothing; slight dulness along the ascending colon; hiccough and vomiting of bile, pupils contracted. Hernial openings all examined. The right external ring was regarded as larger than usual in a case where there had been no descent of hernia in four years. This condition being regarded as significant of "réduction en bloc," the whole inguinal canal was examined and nothing found. Deep pressure in the iliac fossa immediately above Poupart's ligament detected; no tumor; no tenderness over obturator foramen; no pain in course of nerves which passes through it; slight tenderness of abdomen; abdominal muscles relaxed; no peritonitis. Laparotomy was suggested, but it was thought the symptoms were not marked enough to warrant the operation.

7 P.M.—Patient given an enema of two quarts of water and soapsuds, which was returned colored with faces. Temperature normal, pulse 124, has passed ℥ vi. of urine, rejects all nourishment; no stercoraceous vomiting; hiccough continues.

4 A.M.—Patient up on the chair and straining; face cold and covered with perspiration. Complains of pain referred to right of umbilicus. ℞ xv. Mag. sol. morph. sulph. given, which relieved the hiccough. Vomited matter green.

Examination of urine, sp. gr. 1018, acid; no sediment; no albumen, red; no casts, amorphous urates and triple phosphates.

March 28th.—Pulse 98; temperature 99½. Another large enema given this morning with same result as before. Vomited matter darker, not stercoraceous. ℥ xvi. of urine for the twenty-four hours.

8 P.M.—This afternoon vomited only mucous. Retained a little milk; not much pain; no change in abdominal symptoms; hiccough continues. Chloroform administered; patient inverted and an enema of four quarts of warm water with soapsuds and castor oil given. Came back colored brown and containing a few small pieces of hard fæces. Temperature normal, pulse 130. At 11 P.M. the matter vomited was darker, but not stercoraceous.

March 29th.—Hiccough, vomiting and prostration most marked symptoms; temperature normal, pulse 120. Urine for twenty-four hours ℥ xxiv. A consultation called for 2.30 P.M., at which laparotomy was unanimously advised.

Operation, March 29th, 3 P.M.—Under the spray and with all antiseptic precautions, an incision was made in the median line from the umbilicus to the pubes, when the linea alba was reached, such vessels as required it were secured by torsion or gut ligatures; a small opening was then made in the aponeurosis, and it was slit up and downward to the extent of the superficial wound; the peritoneum was incised in the same manner, when a coil of congested small intestine protruded. Two fingers were next introduced deeply in the direction of the right iliac fossa, and in a few moments discovered a small circular aperture into which the point of the index could be insinuated, and also into which could be traced a portion of intestine. After the recognition of these facts by several of the surgical staff, an attempt was made to lift this opening to the surface so as to facilitate the release of the gut, and in attempting to do this something was felt to give way. It was not

intestine, for there was no escape of gas or anything else; in fact, the impression conveyed to the finger was that of the abrupt yielding of an adhesion in the neighborhood of the ring. At all events it was evident that something had given way that confined the gut within the opening, for it now only required very slight traction to draw out a coil of congested and ecchymosed intestine, otherwise in good condition.

The finger could now be passed through the opening with ease and the pouch beyond it could be readily pushed downward in the direction of the inguinal canal, and felt there by the finger of Dr. Mason, who had invaginated the scrotum into the canal.

It was clear now that we had to deal with a hernia retro peritonitis anterior, but still such a condition of parts was not consonant with the fact that we had been repeatedly assured by the patient that his hernia had not been down for a long time, and that frequent and very careful examinations had failed to reveal the true nature of the case; the whole length of the inguinal canal had been thoroughly explored, deep pressure above Poupart's ligament had detected no tumor, in fact the most searching scrutiny in that direction had given only negative results.

The wound was closed with silver wire sutures, with intermediate ones of gut and the whole abdomen was covered with the Lister dressing.

8 P.M.—Patient suffering from shock, but rallying slowly. Vomiting and hiccough have ceased, pulse 120, temperature normal, cold sweat on forehead; gr. i. pulv. opii given every two hours with small enemata of beef-tea and brandy every two hours.

March 30th.—Did not sleep, but had no pain; pulse 100; temperature 100½°. At 8 A.M. passed ℥ ix. of urine; tympanites increasing; slight tenderness on pressure; no vomiting; condition better than before the operation; opium and enemata continued; tongue clear.

8 P.M.—No change during the day; pulse 116; temperature 101½; respirations 28; face anxious. Patient complained of so much pressure from bandages, that dressings were changed under the spray; wound looks well; tenderness more marked; knees slightly drawn up; opium continued in 1 gr. doses every two hours, with nourishment by the mouth.

March 31st.—Temperature 99½; respirations 32; pulse 120; distention of abdomen increased, tenderness more marked; tongue coated brown, slightly cracked; enemata not retained; no movement from bowels since operation; no vomiting; very restless; profuse sweating.

8 P.M.—Takes nourishment well by the mouth; tenderness of abdomen marked; pulse 120; temperature 100½; restless; slightly delirious; tongue brown.

April 1st.—Early this morning patient actively delirious; had torn the dressings off. Morphine given hypodermically; pulse 140; temperature 100¾; respirations 44; abdomen much distended and tympanitic everywhere.

8 P.M.—Pulse 160; temperature 103° in axilla; patient wildly delirious.

9 P.M.—Pulse 160; temperature 101°; respiration 48; passed a small amount of water; delirium continues.

11 P.M.—Pulse 160; respirations 28; temperature 103°; clammy sweat; anxious face; hands cold; headache; abdomen very tympanitic; stimulants and opium continued.

2 A.M.—Noisy, violent delirium continues; ℥ iij. of high-colored urine drawn off.

6 A.M.—Pulse 160 and almost imperceptible; extremities cold; respiration 18.

Died at 8.10 A.M., four days after operation.

Necropsy by Dr Wm H Porter, Curator to the hospital, twelve hours after death. Rigor mortis well pronounced; body well provided with fat; after removal of the sutures from the incision of operation, which extended from umbilicus to os pubis, there was no gaping of the wound.

Pericardium and heart.—The pericardium was normal; there were two small milk patches on the anterior surface of the left ventricle. The pericardial sac contained three ounces of clear straw colored serous fluid, all the heart cavities were nearly empty of blood, though there was a small amount of coagulum in the right auricle. There was slight insufficiency of the bicuspid valve, caused by commencing fatty degeneration, thickening and retraction of the folds of the valve, the other valves were free and normal. Left ventrical slightly hypertrophied; weight of heart thirteen ounces.

Pleura and lungs.—Lungs were a little œdematous; otherwise nothing abnormal was noted. The intestines were free, but enormously distended with gas, the large as well as the small. Just below the splenic flexure, the lumen of the colon was apparently diminished, but the gas and fluid contents could easily be made to pass through the constriction. When the loose connective tissue, binding the colon normally to the posterior wall of the abdomen, was divided, the previous apparent constriction at once disappeared. No other even apparent contraction was noticed until they were laid open; there was no evidence of peritonitis, and the bright, glistening appearance of health was apparent throughout them. There was, however, some very dark spots at two points along the line of the small intestines, but no old fibrinous bands in the peritoneal cavity, and there were no abnormal openings in the mesentery, but it exhibited four or five old stellar cicatrices. All the tributaries of the portal vein were enormously distended with blood, but not over the surface of the intestines, the congestion arising from the mucous instead of the peritoneal surfaces; the inferior vena cava and renal veins were fully distended with blood.

Liver.—The liver was intensely congested, and seemed swollen to its utmost capacity. Weight of liver fifty-six ounces. The liver in this swollen condition may have pressed upon the inferior vena cava, thus causing its distention.

The alimentary tract was removed entire, and the intestines were opened along the margin of their mesenteric attachment. The following condition then presented: the colon contained considerable semi-solid fæcal matter, the small contained only fluid fæcal matter; the mucous surface of the colon was congested, most markedly in the ascending portion; the lumen of the last twelve inches of the ileum was only one half that of the upper portion, the mucous surface of the contracted part was deeply congested and dark in color; Peyer's patches and the solitary follicles were quite prominent, but the zone of congestion terminated abruptly at their margins; the adjoining twelve inches, just above the portion described, was also deeply congested and red in color, contrasting strongly with the darker portions on either side. The abrupt termination of the congestion at the margins of the glands was not so well shown in this portion, the appearance here was that of an acute inflammation. The remainder of the small intestine, from this point to the stomach, was also

deeply congested in its mucous coat. At two places—one seven, the other ten feet from the stomach—the congestion was much more marked, and the color of the intestine, greenish black, as if gangrene was about to set in; the stomach was congested especially at the cardiac and pyloric extremities. The true and false pelvis were carefully examined for abnormal openings, but none were found. The internal abdominal ring on the right side opened into a dilated inguinal canal, lined by a serous membrane, but did not communicate with the scrotum, cicatricial bands having been formed at Poupart's ligament.

Kidneys.—The renal veins were distended with blood, the kidneys enlarged and congested, weighing seven and seven and one-half ounces; capsule slightly adherent; after removal of the capsule the intercapsular surface were finely granular. On microscopical examination, evidence of chronic diffuse nephritis was found; the connective tissue was considerably increased and there was granular and fatty degeneration of the epithelia; the Malpighian bodies were studded with lymphoid corpuscles.

Brain.—Upon removing the calvarium a small quantity of bloody serum escaped; the vessels of the meninges were distended with blood. The pia mater and arachnoid were considerably thickened and gave the membrane an opaque whitish look, as if there was a deposit of lymph over the convexity. On both surfaces of the falx cerebri there were a number of small bony projections, the puncta vasculosa were unusually prominent. The whole brain was deeply congested, and there was a slight amount of bloody serum in the lateral ventricles.

Remarks.—The fact that we had to deal with an intestinal obstruction in this case was manifest from the beginning; that it was moderately acute was also plain, but the usual difficulty was encountered in deciding as to the seat and anatomical cause of the occlusion. Thorough and repeated exploration of the usual sites of hernial protrusions elicited nothing; the more open condition of the right inguinal attracted attention, as it was thought possible that a protrusion might have been reduced with its sac, but examination of its whole length detected nothing, and there was no deep-seated tumor above Poupart's ligament on the corresponding side. In the early stage of the attack, before meteorism masked the condition of things, and when it was possible to make a very complete examination, there was at no time discovered such a tumor as one would expect to meet with in intussusception, and at no time had there been any of the bloody or slimy discharges that always accompany that condition. His age was against the probability of any slowly forming stenosis suddenly closed by the impaction of fæcal or foreign body, and he had not suffered from the alternating constipations and diarrhœas that are met with under such circumstances. The same point was always indicated as the seat of pain, one inch and a half to the right of and below the umbilicus, but in the beginning, deep pressure detected nothing between that point and Poupart's ligament. Exploration of the rectum by the finger found nothing, and the same result followed the introduction of large quantities of water under chloroform narcosis, and in the inverted position this was done with a view to determine the location of the occlusion, as it was an important therapeutic element to know whether it was in the small or large intestine. If in the latter the injection might possibly soften down or remove a fæcal mass, or release a twist in the sigmoid flexure, and it being now known by experiments on the living that such agents may pass the ileocæcal valve when the patient is narcotized and inverted, it being also known that paralysis of the hyper-extended gut by changes in the muscular fibre adjacent to inflammatory processes in the mucosa, or through influences reflected from the peripheral branches of the splanchnic might produce the same effect upon the valve and permit the introduction of water into the small intestine; but by this means all we were able to determine was that the colon was probably free.

That the obstruction was not high up was probable from the fact that anuria did not exist; the amount secreted by the kidneys was diminished, it is true, but it was not by any means entirely suppressed. By some it is understood that anuria only exists when the obstruction is in the beginning of the ileum or jejunum, but it is now well known that the condition is as much influenced by the acuteness of the attack, as by the position of the obstruction. Another symptom that warranted the belief that the trouble was in the small intestine, was the meteorism which in the earlier part of the attack was confined to the meso- and hypogastrium, and on the 29th was markedly prominent at that part where he had always located the pain. These considerations, in the absence of anything definite, warranted the supposition that the obstruction was near the termination of the ileum, and that it was caused by diverticle, band, twisting, or internal hernia.

Recovery from such a condition being so exceptional as scarcely to be worthy of consideration, the propriety of an operation was debated, and it was unanimously agreed that the interests of the patient called for immediate interference. The special operation likely to succeed was next discussed, and three methods presented themselves as likely to meet the wants of the case.

The first—exploration of the right inguinal canal, which was rejected because frequent search had failed to find any tumor in the immediate vicinity of the crural arch.

The second—laparo-ileotomy, or Nelaton's section, made immediately above the right Poupart's ligament, without reference to or search for the obstruction, but simply with the view of securing the first presenting loop, and securing it to the wound in the abdominal walls, condemning the patient to an artificial anus for life.

The third—laparotomy by median section, which was selected as affording more room to search for and act upon the obstruction, whatever its character or condition might be.

It was surprising with what ease the obstruction was found, after a few moments' search, the finger came directly in contact with, and its point could be insinuated into an aperture which appeared to be situate in the centre of the iliac fossa, and the first impression was that it was a hernia iliaco-subfascialis, or into one of the recesses sometimes found in the neighborhood of the cæcum or appendix. It was only when the intestine was released that it was found that the pouch could be pushed downward into the inguinal canal, which it is presumed should be regarded as evidence that it was the variety known as "Hernia Retroperitoneal is" (Klebs).

Typhus Fever, as well as diphtheria, is scourging Russia. In St. Petersburg nearly a hundred deaths per week have been reported from the former disease.

ON THE RELATIONS OF NERVE AND MUSCLE.

By THOMAS W. POOLE, M.D.,

[illegible]

(Continued from page 14.)

The following are additional facts and considerations in support of the thesis that the true function of nerve-force is to restrain muscular contractile power, not to stimulate it.

Objection has already been taken to the assumption necessitated by the theory of the day, that in dyspnœa and asphyxia impure venous blood is to be regarded as superior to normal arterial blood as a pabulum for the generation of nerve-force in the respiratory centre. On the theory advocated in these pages, the more rapid breathing of the first stages of slow asphyxia is no more indicative of increased power than is the rapid pulsations of the heart in conditions of lowered vitality; while as this process deepens, or in the more rapid asphyxia of tracheal occlusion, the respiratory centre becomes so enfeebled that a prolonged interval is necessary between each exertion of its power before it has again acquired sufficient nerve-force to relax the contracting muscles and effect another effort at inspiration; such intervals of repose and recuperation becoming longer and the nervous discharges feebler, and the consequent restraint over the muscles less effectual, in proportion to the increasingly defective arterialization of the blood, till ere long the power of the nervous centres is extinct and respiration ceases with it. Thus the spasms and convulsions which attend fatal asphyxia (Dr Burdon-Sanderson), and which affect not only the muscles of respiration, but the muscles of a wide area of the body, and which intensify as death approaches, are due, as in other cases, to a deprivation and not to an excess of nerve-power. Let the reader say whether such a view of the case is not more in accordance with sound physiology than the one already quoted, in which pure arterial blood is declared to be less effectual than impure venous blood in promoting the functional activity of the nervous centres.

The author referred to in this connection in the previous article (Dr. Fothergill) is not alone in his estimate of the efficacy of venous blood as a "stimulus" in the production of muscular contraction. Dr. Carpenter propounds the same view, and in illustration of it quotes the following experiment of Dr. Brown-Séquard. In a pregnant rabbit "the injection of venous blood into the uterine vessels" immediately "caused the expulsion of two or three fœtuses." ("Phys.," 7th ed., p. 762.)

There is here no proof that venous blood is a stimulant to nerve-action. Such is assumed to be the case merely because it serves to offer an explanation of the effect produced. But any other hypothesis which will equally explain the situation is as much entitled to consideration. Is it not quite as rational to hold that by the substitution of venous for arterial blood, nerve-action in the ganglia and nuclei of the uterine walls was arrested, and the uterine muscle thus deprived of its normal nervous restraint, exerted its inherent power of contraction accordingly, with the effects mentioned, just as a dose of ergot might also be expected to do, and in a similar manner? The restoration of arterial blood put an end to the nerve paralysis, and with this to the uterine contraction. Our explanation has the advantage of being consistent with other facts regarding muscular contraction; while the other view of the case, besides failing in this respect, has the disadvantage that neither venous blood nor ergot of rye can properly be regarded as physiological stimuli to nerve-tissue.

This simplified theory of vascular control enables us to dispense with the complicated and confusing vaso-motor theory of the day, in which "inhibitory," "accelerating," "depressor," "constricting," "dilating," and other systems of nerves, with their hypothetical centres have been invented to meet the exigencies of the theory of the day. What a frightful waste of force is implied in opposing systems of nerves, checking and counter-checking each other, and playing at cross purposes in every part of the organism! Already the axe has been laid to the root of this tree, and it has been frankly admitted that, so far as the so-called "accelerators" and "depressor" are concerned, they exert no direct influence over the heart at all, and only influence it indirectly, like ordinary vaso-motor nerves, through "the peripheral circulation." (See Prof. Kuss's "Lec. on Phys.," p. 167; Dr Burdon Sanderson's "Handbook," etc., p. 286.)

This theory explains how, in the hands of the surgeon, the twisting of an artery arrests hemorrhage. This little operation effectually breaks up and destroys the vaso-motor nerve connections with the muscle without too much injuring the muscular fibres themselves. The nervous restraint over arterial contraction is thus removed, and the contractile power of the arterial muscle occludes its calibre. It has been specially advised to avoid "twisting the vessel till the end is twisted off, for by so doing we do away with the chief safeguard against bleeding." (Dr. Bryant: "Guy's Hospital Med.-Chir. Trans.," 1868, p. 193.) The reason is now obvious why the integrity of the muscular tissue should be spared, while destroying its more delicate nervous connections.

The arrest of hemorrhage by water, not simply warm, but *hot*, admits of a similar explanation. If a frog be placed in water at a temperature of 42° C., or 107½° F., it dies with its muscles in a state of rigidity. If the hot water here acts as a "stimulus" to the nervous system, thereby increasing its functional activity, *why does the frog die?* Is it not preferable to hold that in the arrest of hemorrhage from a bleeding vessel the hot water paralyzes the vaso-motor nerves of the part, and, in the case of the frog, that it paralyzes the motor nerves generally, in both cases causing muscular contraction by withdrawing nervous restraint?

This theory accounts for the cure of congestive and inflammatory states by drugs which paralyze or lower the activity of the vaso-motor nerves. The *dilating* power of these being thus reduced, the contractile power of the arterial muscle predominates, and a reduction of the arterial calibre follows with its accessory results. A wide field is here opened up which, if properly improved, would place our therapeutics upon a greatly improved basis.

Even the *quasi* stimulant action of digitalis in relaxed states of the vascular system, finds its explanation here, consistently with the general paralyzing character of that drug. By reducing nervous dilating power over the heart and the larger arterial trunks, the contractile power of these, no longer unduly restrained, asserts itself more vigorously. A reduction in the calibre of the flabby blood-channels causes an acceleration of the blood-stream (increasing nutritive changes in the heart itself), and if the effect produced does not proceed too far, circulatory

activity is materially improved. Remember that Dr. Stillé denies that digitalis gives "a real increase of power to the heart" ("Nat. Dis.," p. 504), and Dr. Ringer combats the tonic theory of the action of digitalis on this organ. The above explanation is therefore submitted with the greater confidence.

The action of strychnia, when properly understood, will not be found adverse to this theory. Dr. Anstie well points out that it has been too hastily classed as a spinal stimulant, in deference to prevailing notions rather than on any basis of facts; and further, that, notwithstanding the appearances of excitement, the action of strychnia is attended by a loss of common sensibility, and he concludes that whatever thus impairs innervation must be a paralyzing agent (Stim and Narcot). Dr. Harley teaches that it reduces the blood to the character of venous blood, which Dr. Radcliffe claims to be a condition equal to the loss of blood. It is significant that profound motor paralyzers like calabar bean and conium have been discarded as antidotes to strychnia-poisoning, and that for this purpose stimulants, as whiskey, are rapidly coming to the front as the best antidotes. (See *Amer. Jour. of Med. Sciences*, Oct., 1879, p. 587; *Canadian Jour. of Med. Science*, Jan., 1880, p. 15.) Even the most reputable antidote to strychnia-poisoning at present—hydrate of chloral—need not necessarily be regarded as a depressant when thus used, for has not Dr. W. A. Hammond declared that it is a dangerous remedy in "maniacal excitement," and that "its first effect is always to augment cerebral congestion" ("Dis. of Nerv. Syst.," p. 383.) May it not produce a stimulant effect under the exceptional circumstances of strychnia-poisoning, even in large doses, just as "the ordinary *stimulant* effect of small doses of alcohol and opium may be produced in cases of acute exhaustion of the nervous system, by doses of these drugs, which, under other conditions, would be *narcotic* in their action?" (Drs. Anstie, Stim, and Narcot, p. 213.)

It would be interesting to note the varying conditions of the iris and pupil resulting from disease or drug action in the light of this theory. That the iris is an erectile tissue, and that the size of the pupillary opening is dependent upon the fulness or emptiness of the blood-vessels of that tissue is an opinion rapidly winning its way among leading writers and authors. Dr. Anstie and Dr. Radcliffe strongly support it, and Dr. Alfred Stillé, in the National Dispensatory, practically concedes it (p. 1017). The simplified theory of vaso-motor control here advocated, will be found admirably in accord with pupillary changes as produced by the fulness or emptiness of the iridal vessels, with which the vascular condition of the brain usually corresponds.

The theory here advocated tallies with the true nature of electricity as a paralyzing agent, in virtue of which it sets the muscles free to contract. It acts on the arteries like other paralyzers in reducing their calibre—an effect never attending the action of a stimulant, and, in addition, like a true ally of death, it materially hastens the onset of rigor mortis.

It explains the onset of "early rigidity" from a *paralyzing* lesion of the brain, depriving the muscles promptly of their customary nervous restraint. This result cannot be due to any hypothetical "irritation" of the brain, since Dr. Ferrier maintains that even cauterization with a red-hot iron is not a source of irritation to the insusceptible tissue of the cerebral lobes.

It also accounts for the occurrence of "late rigidity" by the slower and secondary *degeneration of tissue* in the spinal cord—a condition which it is impossible to suppose favorable to increased elaboration of nerve-force wherewith to stimulate the muscles, as the theory of the day requires.

The truth of the theory here advocated finds a strong confirmation in the description given by Dr. J. Thompson Dickson, A.M., M.D., in his "Medicine in Relation to the Mind," of the "wasting and atrophy" of the brain, which forms one of "the most common conditions" in cases of insanity and general or progressive paralysis, where this condition is regarded in the light of the following extract, quoted by Dr. Dickson from the *Journal of Mental Science* for July, 1869:

"Drs. Ponicasè and Henri Bennett state: 'In general paralysis the cells of the whole chain of the great sympathetic are covered with brown pigment to a degree much more intense than in other subjects from whatever disease they may have suffered. In the ganglia of the cervical region, and often in the ganglia of the thoracic, there is evidently a substitution of cellular tissue and of adipose cells for the nerve-cells, which are comparatively rare. . . . Everything leads us to think that this is the anatomical starting-point of the affection, and that the alterations of the encephalon are the mere consequences of the disorder which this sclerosis, by a *paralyzing action* of the cervical ganglia, produces in the cerebral circulation" (pp. 280–281).

On the theory now popular, diminished blood-supply to the brain, with "atrophy, shrinking, and degeneration of tissue" as its consequences, could only be produced by undue excitation of the vaso-motor nerves, arising in turn from an excessive production of nerve-force in the sympathetic centres. But here is the anatomical and physiological proof that these centres are the victims of sclerosis, that owing to substitutive changes the proper nerve-cells "are comparatively rare," and that paralysis and not excitation is the term expressive of their functional state. On the theory here advocated, this paralysis, with its accompanying failure of vaso-motor nerve-power, is precisely the condition most favorable for bringing about contraction of the cerebral arteries, and thus starving the brain tissue into a state of atrophy and degeneration, which theory is most deserving acceptance and endorsation.

The arguments against the theory of the day on the relations of nerve and muscle, and in favor of the theory here presented, are by no means exhausted in what has here been written. But the case is submitted to the reader for candid consideration. If in his unbiassed judgment the theory here advocated is not justified, or "not proven," we ask him to remember how difficult it is at the outset to forlify every point, and to recall how very little in medical, or even in physical science outside of mathematics, demonstrations can be regarded as positively proven. If the facts above cited have any value, then the prevalent theory on this subject is not only not proven, but untenable; and if we must have some theory on the subject, as is certainly the case, then that theory is best which most nearly accords with the great majority of the facts, and best serves to elucidate them. Such, I firmly believe, is the theory here presented—the theory of the future, when the mists of prejudice shall have cleared away, and a great truth finds abler advocates.

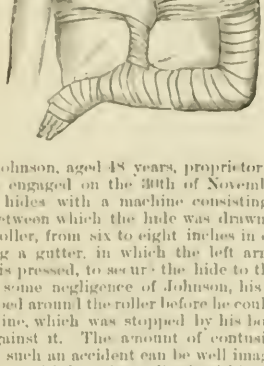
Surgeon-General Cahill, of the British service, has been visiting this city.

A CASE OF A COMPOUND AND COMMINUTED FRACTURE OF THE ARM AND FOREARM

By JAMES S. GREEN, M.D.,

PLAINFIELD, N. J.

This case is reported as remarkable for the number of fractures occurring in same limb: three in the forearm, two of which were compound, and two in the arm, one which was a fracture near the surgical neck of the humerus: the recovery being perfect, following complete envelopment of the limb in a plaster-of-Paris bandage, applied within two hours after the injury, supplemented on the sixth day with Stillman's cable splint to secure the fracture at the neck of the humerus.



John Johnson, aged 48 years, proprietor of a tannery, was engaged on the 30th of November, 1879, splitting hides with a machine consisting of two knives, between which the hide was drawn by a revolving roller, from six to eight inches in diameter, containing a gutter, in which the left arm of the operator is pressed, to secure the hide to the roller. Through some negligence of Johnson, his left arm was wrapped around the roller before he could reverse the machine, which was stopped by his body being drawn against it. The amount of contusion occasioned by such an accident can be well imagined. I saw Johnson with Dr. Alonzo Pettit within two hours of the accident; found him suffering considerably from shock, in great agony, and pretty freely stimulated with alcohol. Upon removing the clothing, we discovered that the left upper extremity was fractured in five places. The ulna, about three inches above the styloid process, had a compound fracture, and also was broken within two inches and a half of the olecranon. The radius suffered a compound fracture at a point nearly opposite a similar one of the ulna. The humerus was broken at the junction of the lower and middle third, and also at the surgical neck. The skin was not broken, except at the points of compound fracture, from which a small quantity of blood was discharged. The hand was warm, and the pulses in the brachial, radial, and ulnar arteries were good. Having placed the legs of two stockings upon the arm and forearm, the whole limb was enveloped in a plaster-of-Paris bandage, from the fingers to the shoulder, the arm and forearm being kept in a straight line, so that the circulation should not be interfered with by the flexion of the elbow. Windows were then cut out of the splint at the points opposite the compound fractures, and the wounds dressed with picked oakum and Peruvian balsam, and the whole supported by a bandage. The patient was then put to bed, and his arm drawn down by his side, as it was found impossible to keep the fracture at the surgical neck in opposition in any other way, while the line of the arm and forearm was straight. A full dose of morphia was given.

Dec. 1st.—The patient passed a comfortable night, after a second dose of morphia. The fingers are warm, sensation is good. The wounds of the skin at the points of compound fracture look well, except that at the edge of the windows small blebs filled with yellow serum have appeared. The fenestra were enlarged until the pressure was relieved.

Dec. 3d.—Johnson has considerable traumatic fever; pulse, 120; temperature, 101. The limb, however, is not painful, and the bulbs have not refilled. Hand is sensitive and warm.

Dec. 4th.—Patient's fever less. Wounds looking well.

Dec. 6th.—The skin of the hand and that to be seen around the wounds of the compound fractures being healthy in appearance, it was determined, in consultation with Dr. Pettit, to flex the elbow and secure the fracture at the surgical neck. A large ovoid piece was cut out of the splint in front of the elbow, extending by its points nearly to the olecranon. The forearm was flexed nearly to a right angle, and the skin being protected by cotton, a plaster bandage was placed around the elbow to secure it. The patient being clothed with a tight-fitting knit shirt, "the cable splint" (devised by Charles F. Stillman, M.D., of Plainfield, N. J., and published in the MEDICAL RECORD of October 20, 1877) was applied. On the second day after the last dressing the patient was able to be about his tannery. No further attention was required, except dressing the wounds of the compound fractures, which were healed perfectly at the second week.

Jan. 10, 1880.—The splints were removed, and all the fractures were found united without deformity. The wrist, elbow, and shoulder-joints in good condition.

March 1st.—Patient has perfect use of his arm, and, with the exception of occasional traumatic rheumatism, is as well as he ever was.

This case demonstrates the great value of the "cable splint" in fractures near the shoulder-joint, and the propriety of *immediate immovable dressings properly applied* in fractures involving joints, or in those where a large amount of swelling and inflammation will naturally occur as the result of injury, if *the circulation* of the *part* is not properly *controlled* by *pressure*. In a future paper I propose more fully to discuss the last statement, and illustrate it by a number of successful cases in which "*swelling*" was not "*wanted for*."

OVARIOTOMY BY A TRAVELLING QUACK.—*The Cincinnati Lancet and Clinic* reports a case of ovariotomy in which no ovarian tumor was found. The patient, aged fifty five, had been suffering from abdominal enlargement for some time. Several physicians pronounced it an ovarian tumor, among them an itinerant doctor who pretended to have come from New York. He advised an operation, and the patient consented. Upon making an incision, the operator discovered that there was no ovarian tumor at all, but that the enlargement was due to deposits of adipose tissue in the abdominal wall. The wound was sewed up, but the patient died in three days.

Reports of Hospitals.

CHARITY HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

Reported by Dr. Walter B. Johnson, House-Surgeon.

CAPILLARY INSUFFICIENCY WITH MITRAL AND AORTIC OBSTRUCTIVE MURMURS.

J. H —, æt. 22, printer. Patient is tall, thin, and anæmic; has at all times a dull, heavy expression. He came to Charity Hospital about two months ago (on service of Thos. H. Allen, M.D.), complaining of swelling of the lower extremities, with pain, redness, and heat.

Family History.—Indefinite. The family are all dead. Cause unknown.

Previous History.—The patient's recollections of his early childhood are indistinct. He suffered at one time with sore mouth, and at another with sore eyes—probably catarrhal conjunctivitis. He has been a steady drinker, principally of whiskey. Would drink some each day, before and after meals, and get drunk about once a week. Has indulged in excess of venery, and frequently exposed himself carelessly, but denies all venereal history, specific and non-specific.

Has used a great deal of tobacco, both chewing and smoking. He does not remember of having been ill at all until he was eighteen years of age. Patient then suffered from malarial fever, which lasted about three weeks, and was probably remittent in character.

During the attack he had intense headaches, the pain being situated in the anterior portion of the cranium, and these continued, at intervals of two or three days, for some time. Six months after that, from exposure to cold and wet, he had an attack of rheumatism, which lasted about seven weeks, and confined him to bed three weeks of that time. This affected only his lower extremities, which were red, swollen, and painful, particularly on motion. He had at this time considerable fever. About a day or so after the rheumatism came on he noticed a rash, which appeared first on the ankles, and spread over his lower and upper extremities (the rash will be described in the history of his present attack).

The rash lasted about one month after he was entirely cured of rheumatism. During the three weeks he was confined to bed the rash disappeared, but immediately showed itself on his getting up. During this attack he suffered from cough, dyspnœa, pectoral pain, and after recovery he noticed that he was troubled by palpitation, dyspnœa, and præcordial pain, especially on exertion. About four months subsequently, the heart trouble became much ameliorated, and remained so until about three months ago, when, with his present attack, it returned with renewed vigor. He has not been troubled by much œdema of the feet, although it has always been present when the eruption first appeared, and also at times after standing for a long time in one position in cold or damp weather. His feet and hands are often cold and blue, and at those times painful.

Present History.—About four months ago—after a drunk and exposure, his clothes being wet through—he had a severe cold, and a few days after this he commenced to suffer from pains in his feet, which were rapidly followed by heat, redness, and swelling of the parts, and the appearance of a peculiar rash.

This eruption is macular in character, unattended by pruritus, the spots varying from the size of a millet-seed to that of a pea. These appear very suddenly, are bright red in color, irregular in shape, and do not disappear on pressure; and they are always brighter in the evening, if patient has been up during the day, also on exertion, or on rising after spending a few days in bed. On disappearing, they leave a copper-colored pigmentation, which remains for some time before absorption takes place.

The rash is confined mostly to his upper and lower extremities—on the lower especially—being very closely aggregated, so as to appear confluent in some places, on superficial examination. He also has a few scattered spots on his body, none on his head and neck.

Shortly after the rash appeared he had an ulcer on his left leg (lower third, outer side), which appeared as a pimple, and spread to about the size of a two-cent piece; also, a small ulcer on upper third, inner side, of the same leg. The former proved to be very indolent, and not amenable to treatment, and was only healed after his general health was improved. He has complained, during the entire attack, of a dry cough, attended by dyspnœa, palpitation, and præcordial pain. The rheumatic symptoms above described, lasted, with more or less severity, for about three months, and on his recovery the rash was still present. He had been treated with:

Tr. digital.	ʒ i.
Tr. aconit.	♏ xij.
Syrup	℥ i.
Aquæ	ad. ℥ ij.

M. et sig. ʒ i., t. i. d., increased to ʒ iij. doses.

Under this treatment, and a rheumatic mixture, the patient being in bed, the rash disappeared in about three weeks, when its brightness had gone, and only the pigmentation remained. The rheumatism being cured, he was allowed to get up and walk around the ward, and in three hours the rash had reappeared in its brightest hue.

Patient was permitted to remain, and was put on ♏ xxx. doses of the muriated tr. iron, and ʒ ss. doses of ol. morrhuæ. His strength increased daily. His bowels, which had been costive, became regular, and he recovered his appetite.

Present Condition.—Patient's general health is much improved. His rheumatism troubles him only slightly on damp days. Appetite is good, bowels regular. His heart symptoms are also much relieved. The rash now consists of pigment stains, and a few scattered spots, which become bright red by evening, and then gradually disappear. Patient is going to work, and will probably not be seen again.

Physical Examination.—Lungs negative.

Heart Inspection.—Slightly diffused impulse.

Palpation.—Apex-beat displaced downward and to the right about one and a half inches. A slight purring tremor is felt.

Percussion.—Area of heart, dulness increased, except on the left side.

Auscultation.—A loud, blowing murmur is heard with most distinctness at apex, and is presystolic; also a murmur with the second sound of the heart with most distinctness at the base, and transmitted up carotids and heard over vertebral column.

The eruption above described was thought to be due to insufficient capillary integrity, which had some connection with the heart lesion.

Progress of Medical Science.

Danger of Salicylic Acid in Rheumatism.—Dr Mackenzie makes the following statements: 1. In acute rheumatism the heart is apt to be inflamed. In a mild form this is much more common than is usually supposed. Myocarditis may exist independently of inflammation of the membranes. In all forms it produces softening and weakness of the muscular substance. 2. Salicylic acid, no matter whether given alone or in combination with soda, exercises a depressing action on the heart. This action is by no means general, and is probably due to some idiosyncrasy of the affected individuals. 3. If this depressing action be produced in one in whom the heart is physically sound, no great harm will be done. With the omission of the drug the depression will soon pass off. But if it be produced in one who is already the subject of rheumatic myocarditis (an ailment which is not easily recognized during life), and in whom therefore there exist softening and enfeeblement of the ventricular walls (for the left ventricle is the chief seat of such inflammation), the depression is likely to be alarming, and may be fatal.

To form an adequate estimate of the nature and extent of the dangers attendant on the administration of salicylic acid in acute rheumatism, we must recognize—first, the tendency of the rheumatic poison to produce inflammatory softening and weakness of the muscles of the heart; and, secondly, the tendency of salicylic acid to depress that organ. It is in the combination of these two that lies the danger of the drug. It is in the absence of the tendency to produce such depression that lies the superiority of salicin over salicylic acid.—*The Lancet*, Feb. 28, 1880.

Case of Adeno-carcinoma Nasi et Cerebri.—At a post-mortem, Prof. Axel Key found besides hyperæmia of the cranium and dura mater, together with hyperostoses on the interior surface of the skull, the entire upper lamella of the ethmoid bone perforated and in great part destroyed by a tumor which extended on the left side into the nasal cavity. The tumor had also implicated the dura and extended into the cerebral substance, forming a nodule larger than a walnut in the anterior portion of the left frontal lobe. On transverse section no demarcation was perceived between the dura mater, pia mater, and cerebral tumor. The latter consisted of an external, firm, grayish gelatinous layer, within which was a reddish gray, semi-solid tissue with closely approximated injected vessels. Caseous foci and abscesses were disseminated through this tissue. The cerebral substance was softened around the tumor.

The correctness of the diagnosis of cerebral syphilis, made in the clinic, seemed to be shown by the pachymeningitis externa with hypertrophy of the internal table found at the abduction; and the tumor might possibly have been a gummous new formation which originated in the nose, and which later extended to the cerebral membranes and the brain. The microscopical examination showed, however, that an entirely different condition existed. Throughout the cerebral tumor there were found the prettiest glandular tubes with cylindrical epithelia and open lumina, together with numerous transitions to the carcinomatous types with cell-filled alveoli and solid cell-knobs. The new formation in the nose showed only a cancerous structure. It was therefore almost certain that this new formation, which is so rare as far as the nose is concerned, had its origin in the nasal mucous membrane, that it commenced there as an adenoma, which afterward became a carcinoma and as an adeno-carcinoma broke through into the cerebral cavity.—*Hygiea & Norsk. Med. Arkiv*, Bd. II., No. 16.

Red Perspirations of the Axilla.—At a meeting of the Swedish Medical Society, Prof. Axel Key reported the case of a colleague who had for some time noticed that the hairs in his axilla adhered together, and that this was occasioned by a sticky substance covering the hairs. The perspiration from the axilla stained the shirt red, but occasioned no other inconvenience.

On close examination, Key found the hairs roughened and sticking together, and many of them were covered with a yellowish coating resembling honey. The latter was situated on the free ends of the hairs and formed partly isolated or confluent intumescences, partly rosary, chain-like globules, or a coherent mass surrounding the hair. There were no changes in the skin. The microscopic examination showed that this condition depended on a peculiar fungous vegetation which by transmitted light had an amber yellow color. At its commencement the vegetation appeared as small, thin, glistening lamellæ, of a pale yellow hue, which soon formed small globular elevations of homogeneous appearance in the main, but with numerous embedded small glittering spores. The flakes seemed to be in part on the surface of the hair, in part and predominently the vegetation pressed in between the outer layers of the epidermic plates of the hair, giving the latter a roughened appearance. Again and again the vegetation could be followed as far as the medulla of the hair. No mycelium was discovered. No mention of a similar case could be found in special literature. Buhl, alone, describes, in *Zeitschr. f. rat. Medicin*, Ser. 3, Bd. 16, S. 357, 1863, a new hair fungus which appears to resemble that described above, and which he calls zoogloea capillorum. Hence, it would seem, that this fungous formation is extremely rare.—*Hygiea & Norduskt Medicinskt Arkiv.*, vol. ii., No. 16.

A Cataractous Family.—O. M. Giersing reports the statistics of a peasant family in which cataract was hereditary to an extreme degree. Of twenty-six individuals in five descents there were only six who had not yet had cataract, and of these six two were still small children. The cataracts appeared under many different forms, and some were congenital. In six of the cases the cataracts were removed by operation, and in four of these good sight was obtained.—*Ugeskrift for Læger & Nord. Med. Arkiv.*, Bd. II., No. 16.

Bromide of Potassium as a Local Anæsthetic for the Urinary and Sexual Apparatus.—It has long been known that bromide of potash, locally applied, diminishes the sensibility of the throat and larynx. Dr. J. Kijanizyn (*St. Peters. med. Wochenschr.*, No. 51, 1879) has also found this remedy useful for its local effects on the urinary and sexual apparatus. He injects a solution of the salt into the urethra, when the latter is the seat of painful, acute, or chronic inflammation, in strictures, and in cases of frequent pollutions. He presents cases showing the good results of the remedy.

In urethritis, the pain, redness, and tumefaction of the mucous membrane decreased rapidly, the dis-

charge diminished, and soon disappeared completely with the aid of mild astringents. In a case of stricture, with chronic urethritis and painful micturition, where the urethra was extremely sensitive, and the severe pain prevented the introduction of bougies, in spite of the use of cannabis indica and belladonna salve, a bougie was introduced with scarcely any pain, after the use of bromide of potassium injections for seven days.

Kijanizyu uses 8 grammes of bromide of potassium dissolved in 180 grammes of water. The injection of four grammes is to be made two or three times a day, and the fluid should be retained in the urethra several minutes. From his observations, he draws the conclusion that these injections are of undoubted use in all cases where the indication is to diminish sensibility in the urethra and neck of the bladder; likewise in the treatment of strictures with bougies, in inflammations of the urethra and their complications; in chordee, dysuria, neuroses, etc., and for pollutions depending on peripherical causes. He also recommends the local use of the salt, as indicated in catarrh of the bladder, and of its neck, in increased sensibility of the latter, and for cystic calculi and the like. He considers the effect to be due to the diminished irritation and lessening of the quantity of blood in the inflamed tissue.—*Ugeskrift for Lager*, No. 5, 1880.

Chyluria and Filaria Sanguinis.—Dr. E. Pontoppidon reports (*Hospitals-tidende*, R. 2, Bd. 6) that he has, in the course of a year and a half, seen a score of these cases. The disease was first noticed, as is well known, in 1868 by Wucherer in Bahia. It occurred in both sexes, and at all ages, though not in infants. The duration varied between months and years. Generally no symptom was presented, except that the urine had the appearance of milk, though not constantly; a few hours later the urine might be completely clear; generally, it was most clear in the morning. In one case only, there was retention of short duration; this was caused by fibrinous coagula in the urethra. On extraction with ether, the urine was usually found to contain half to one per cent. (once 1. 3) of fat. Filaria were found in the blood as well as in the urinary deposits.—*Nordiskt Medicinskt Arkiv.*, Bd. 11, No. 26.

Through Drainage in the Treatment of Open Wounds.—Dr. Thomas M. Markoe presents an extended and elaborate article upon this subject in the April number of the *American Journal of Medical Sciences*. He first discusses the Lister treatment of wounds, taking ground directly against Lister's theory, and in part against his practice. Mr. Lister asserts that all the evils, local and general, that result from wounds are caused by the presence of bacteria, which set up inflammatory or destructive action in the wound, and entering the system lead to fever and other constitutional disturbances. Dr. Markoe shows that, while this view has never been practically proved, there are certainly other influences which modify the course of the local affection, as well as the general condition of the patient. Among these are extensive laceration of the parts, overheating or chilling the same, and irritation by foreign substances, all which may so impair the vitality as to make reparative and perhaps even inflammatory action impossible. Furthermore, as regards the constitutional condition, it is certain that such complications as tetanus, convulsions, and neuralgias cannot be caused by bacteric infection.

Having shown that the Lister theory is insufficient, Dr. Markoe proceeds to argue that the practical methods employed by that surgeon may secure their acknowledged good results in another way than by simply destroying bacteria and preventing putrefaction. On this point the belief is asserted that carbolic acid has a special action in allaying inflammation and promoting repair. What this special action is cannot be explained, but it is known that carbolic acid depresses the vital activity of bioplasm.

Referring to the details of Lister's dressing, the writer is of opinion that many of them are unnecessary, and sometimes even actually injurious. They are also cumbersome and expensive. The thick and heavy wrappings will at times retain the secretions, heat the part, and lead to bad results.

On the whole, Dr. Markoe avers the belief that the theory of Lister is insufficient and unproven; and that the good practical results are due to the specific action of carbolic acid, and the surgical cleanliness which the treatment demands.

The mode of treating wounds, which the writer had been employing for ten months in Roosevelt and New York Hospitals, is then described. It consists in passing rubber drainage-tubes into the wound, making counter-openings, when necessary to secure free drainage, and covering the whole with a few layers of carbolized gauze. Carbolized water is then injected through the tubes at first during every two or three hours; after this less frequently. Fifty-two cases are cited illustrating the good results of this treatment. In almost every instance there was but little traumatic fever, the wound was not painful and reparative action soon set in. The treatment seems to be of especial value in compound fractures. Here counter-openings are generally made and plaster-of-Paris bandages with fenestra then applied.

The Typhus Epidemic of 1878 and 1879 in Breslau.—In his report on this outbreak, Dr. Buchwald states that the first case was discovered in February, 1878, and that the epidemic at first seemed destined to assume large proportions. The prison was one of the chief centres of the disease. The number of typhus patients treated at the two principal hospitals of the city was 455, of whom 59, or about 13 per cent., died. The number of cases reported to the police was over 600, but in many of them the diagnoses were probably incorrect. The plague spared no age, but of the children between one and ten years of age attacked, none died, while the disease proved almost invariably fatal to persons over sixty years of age. It was proved, positively, that the epidemic was not autochthonous in Breslau, but that it was brought into the city by travellers. Isolated cases of the disease occurred in every street of the city and its suburbs, but the great propagating centres of it were the lodging-houses patronized by the homeless. These unfortunates were the chief transmitters of the contagium. In some cases the mode of infection could be traced without difficulty. The paper pays a high compliment to the sanitary authorities of the city, for the thorough manner in which they performed the task assigned to them. With regard to the treatment, Dr. Buchwald stated that the salicylate of soda had proved exceedingly valuable; in addition to it, supporting measures and the freest possible ventilation were found most useful.—*Allg. Med. Cent. Zeit.*, No. 4, 1880.

Dr. Wm. Farr has received the order of C.B., the smallest and least useful of orders, so says the *Lancet*.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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SINS WHICH NO CODE CAN REACH.

The adoption of a new code of ethics by the Massachusetts Medical State Society furnishes the occasion for much editorial comment throughout the country. We have been educated to believe that a code of ethics is so essential to our prosperity as a profession, that the opportunity seems to be a good one for congratulation, in that another brilliant page of our history has been written. The man medical, studied from a purely moral point of view, appears to be a dangerous individual when at large and in the ordinary exercise of his calling. From what we can learn he is even more to be feared by the professional brother who calls him in consultation than by the patient who is the occasion of such extra attention. In other word, it seems to be quite necessary that we shall watch each other and be ready with a rule of discipline that shall cover every possible unprofessional act. The trouble is, however, in meeting all the little emergencies. The Massachusetts code is an improvement on that of the American Medical Association, because it is shorter and gives a wider latitude to the interpretation of the spirit of those relations which should exist between honorable professional gentlemen. But like all similar rules they fall so far short of perfection that none but the stupid blunderer is likely to be entangled in their provisions. In any code professedly made for the moral government of any organization there are loop-holes large enough to allow any artful dodger to go in and out before all men with perfect safety against formal discipline. When it is possible to reach such transgressors the profession can rest secure that it has a perfect system of government, and that there is a reasonable protection for the practitioner who attends to his business and believes that every one is as honest as himself.

We would be reflecting upon the high character of the profession as a whole, if we did not assert that the honest men and true are not in the large majority, but there is nevertheless a goodly number who even occupy the chief seats in the synagogue, and who use the code as a phylactery upon a very loosely fitting garment. The former men really need no code to tell them what is right, how to act to their professional brethren, while the latter use it as a plausible covering for the meanest and most underhanded trickery, and are, technically speaking, beyond the reach of ethical accountability. The truly honorable professional physician unconsciously governs his acts according to that higher law which is based upon the golden rule. Practically speaking, a code is as useless to him as would be a set of rules on ordinary politeness for a gentleman. There are many men who have gone on in the good old honest way, in entire ignorance of the code, or at least of its special provisions, and who have done right to their brethren because they could not help it, while there are others who know the code by heart, but who are always ready to quote it as an excuse for acts which every honest man would repudiate. Such are the practitioners, the type of which has been described in the recent letters from Pine Ridge on the Hudson. Even the Boston code cannot reach the one who is always ready "to damn with faint praise" his trusting brother. No set of rules can prevent the so-called successful man from showing his disposition to help a younger brother, especially if the community is told that such help is very necessary. When the old doctor shows a willingness to teach the young and inexperienced practitioner in the presence of the patient, there is a generosity about the proceeding which usually appeals to a sympathizing public. If the younger man loses any business by this means, the public, although they are sorry for his ill luck, generally think that it is a fortunate circumstance for the patients. At least there is nothing in the code that prevents such a conclusion. The young man who has no respect for experience, for age, nor for position is apt to believe that the code, as a whole, only benefits those who dare to transgress its provisions. But there is in reality no law which can punish a practitioner for saying that he has never heard of a worthy brother in his neighborhood; for being surprised that Dr. A. knows anything of chest troubles, that Dr. B. is a gynecologist, that Dr. C. has much experience in the treatment of children's diseases, or that Dr. D. is anything more than an ordinary man. Although this may only show ignorance of well known facts in the profession, yet the public generally takes a different view, not always favorable to the unfortunate unknown. When the consulting physician believes, at a critical juncture in the disease, that it is necessary to substitute chalk mixture for bismuth, or to use any other potent remedy instead of the one being employed, it is of course done for the good of the patient, and in strict accordance with such provisions of the code as tend

to encourage consultations. Any attending practitioner can at once appreciate the danger of losing the family unless due regard is paid to the suggestions of such a consultant. And so it must be so long as the general profession are governed by the mere letter of the law. The accounts given by Drs. Seabury Jones and A. L. Carroll of professional men who are ready and willing by this and similar means to destroy the good name of an associate, find their parallel in the experience of almost every practitioner. It is not that the men who are consulted cannot have a different medical opinion concerning a case, but that they express it either openly or covertly in such a manner as to injure the previous attendant. The shrugging shoulder, the upturned eye, the bland smile, the mild surprise, the ominous and seemingly polite silence show a respect for the code ; at the same time they have a significant effect on the anxious friends of the patient. If the medical attendant is discharged as incompetent, it is of course owing to the ignorance and prejudice of the patient's advisers, rather than to any overt act of the new professional candidate. But when the practitioner tries to explain to himself why these things should be, neither the old nor the new code help him a particle. He is more than ever convinced that there are no laws yet enacted that can make a man honest against his will, no loom, however perfect its workmanship, that can convert the auricle of a pig into a purse of silk.

THE PATHOLOGY OF GRANULAR KIDNEY.

At a recent meeting of the London Pathological Society, Drs. Saundby and Greenfield exhibited a series of microscopical specimens illustrative of this common renal lesion. The views of different authors on the pathology of granular kidney were cited, and an interesting discussion followed. We think the subject is well worthy the attention of American physicians also, and, without attempting a comprehensive analysis of various opinions, we will briefly indicate the present status of our knowledge concerning this form of nephritis.

Most German pathologists agree in regarding the primary lesion as confined to the connective-tissue stroma of the kidney. Accordingly they speak of a *nephritis interstitialis*, and granular kidney represents the second stage of a diffuse chronic hyperplasia of the stroma elements. Hence, all morbid changes in the tubules are secondary, and even the vascular thickening is confined to the adventitia, or connective-tissue coat of the blood-vessels. Active participation of intra-tubular epithelia in the inflammatory process is excluded. Many English pathologists, on the other hand, assert that a chronic desquamative inflammation of the renal epithelium takes place, and that this leads to atrophy of the organ. The kidney is eventually composed of the wasted remains of the uriniferous tubules and hypertrophied blood-vessels. This view of the nature of the lesion is clearly inadequate to account for the presence of well-formed connective tissue in such abundance as it is commonly found. Gull and Sutton affirmed that an interlobular deposit of a hyalin-fibroid material in the kidney takes place. This, they supposed, was followed by atrophy of the intra-tubular epithelia. The vascular thickening was the result of a similar deposit in the inner portion of the external coat. Dr. Saundby attempts to reconcile these opposing views with, as we think, poor success. We have yet to see proliferation of renal epithelia leading to the filling up of the tubules with free nuclei. Moreover, the conversion of such nuclei into spindle cells appears to us extremely doubtful. True, Dr. Hamilton, of Edinburgh, has recently described the mode of development of fibrous tissue from hepatic epithelia, and Dr. Creighton affirmed the transformation of mammary epithelium into connective tissue ; and Dr. Noeggerath, of this city, has also pointed out the possible development of epithelium from non-epithelial tissue. But these isolated observations do not suffice to overthrow Remak's embryological law of the non-convertibility of epithelial into connective-tissue elements, and *vice versa*.

Without wishing to belittle the good work done by the English pathologists, we must freely admit our partiality to the views of the German school on this subject. Still, there is room for more extended investigation, as the discrepant accounts of the lesions of granular kidney abundantly prove. It is to be hoped that our American pathologists will assist in the work of conducting these important and interesting researches to a successful issue ; for it is only through a clear comprehension of its pathological anatomy that we can ever hope to arrive at a right understanding of this disease.

A CRISIS IN NURSING.

For some time past our English brethren have been much exercised over certain disagreements at Guy's Hospital. A new matron was appointed there last winter, and she at once undertook to reorganize the nursing system, introducing new nurses and arranging matters generally after the fashion of the modern training-school. We gave at the time some of the details of this revolution, and referred to the strong opposition which it excited among the medical staff. As the facts appeared to us at the time, a great part of the complaints made was quite uncalled for, and, on the whole, there seemed to be as much conservatism and unreasonableness among the doctors as there was arrogance and radicalism with the executive of the hospital. Letters were written to the various medical journals, claiming that the old nurses were quite as good as those who had been educated and had received a careful training. The

change from black dress to gray appeared to be an outrage, and the transferring of nurses from one ward to another, and the increased authority of the matron, were equally objectionable.

The conflict has steadily continued up to the present time, neither party yielding, but the doctors having much more to say through the medium of the medical journals. In a recent number of *The Nineteenth Century*, however, one of the pupils of the matron appears for the other side in an article entitled "The Present Crisis at Guy's Hospital." Taking this as her text, the authoress proceeds to discuss systems of nursing in general, and draws up a very severe indictment both against the old-fashioned hospital nurse, the hospital doctors who employed her, and the medical students whom she assisted. The whole spirit of her description is exaggerated, and often does great injustice to the persons she discusses. But there is enough of truth in it to confirm us in our original view that the nursing at Guy's Hospital was far from what it should be, and that those attempting reform were not altogether in the wrong, although perhaps carrying out their plans with too much absoluteness and too little deference to the opinions of the medical staff.

The writer in *The Nineteenth Century* asserts that the nurse of the old school was, as a rule, a person of unsatisfactory moral character and very bibulous habits; she was drawn from the class to which the domestic charwoman belongs, and began often as a scrubber or ward-maid. She was overworked, underpaid, and irregularly fed. She often neglected her orders, and, when a night-nurse, was especially apt to be found sleeping at her post, perhaps with a whiskey-bottle in her arms. These nurses, to be sure, did at times show a measure of intelligence, and even became quite skilful in the discharge of their particular duties. The doctors, we are told, tolerated this class of women, and now resent their withdrawal, because such nurses countenanced certain experimenting upon the patients, and allowed, without protest, the intrusion of medical students into the wards. These medical students, "who are proverbially uncouth," seemed to consider that they had a sacred right to enter the wards where and when they pleased, to go behind the screens, to order about the nurses, and to create confusion and "messes" for those unfortunates to clean up. In fact, the patients of Guy's Hospital, at least, seem to have been gotten there for the doctors, not the doctors for the patients. It is further intimated that the relations between nurses and house-doctors was not always of the most proper kind.

Such are some of the evils charged against the old system. That there are touches of truth in the charges will be admitted by those who remember how some of our large city hospitals were conducted not many years ago. In regard to the present controversy, there is right and wrong on both sides. It will, we believe, be the unanimous judgment of America, pervaded as it is with the spirit of reform, that training schools for nurses are most desirable institutions, and that trained nurses are infinitely superior to those of old-fashioned style. There has never been anything but encouragement to these schools from the medical profession in this country, and it seems impossible for us to believe that the charge that English physicians oppose them is grossly unjust. With us the relations of the training-schools with the medical staffs of hospitals have been uniformly amicable. The matron of the school is allowed entire authority over the nurses as regards their assignment to wards, their hours of work, study, exercise, dress, and general mode of life. The doctor, on the other hand, has absolute control over them as regards their direct relations to the sick. Obedience to his orders in this direction is strictly and persistently inculcated. If a nurse is unsatisfactory, the doctor has but to report it, and she will be at once removed. Thus, while the matron has proper authority on her side, the physician is supreme on his.

It has not been very difficult to establish a satisfactory system like the above in many American hospitals, and it is not easy to conceive how so much trouble has arisen at Guy's. We must conclude that there is in the affair quite as much of British slowness and obstinacy as of philanthropic desire for reform or manly defence of inalienable rights.

THE CARTWRIGHT LECTURES.

The establishment of the Cartwright lectureship will be gratifying to the profession of the city, as it must be useful to the profession in general. New York has now obtained a reputation as the medical centre of the country. Its twenty hospitals, with more than that number of dispensaries; its four medical colleges, and fifteen hundred medical students, represent opportunities for medical study and evidences of medical activity that are absolutely unrivalled.

It is desirable that our city should sustain and increase its present reputation, and the establishment of lectureships upon medical science will do much to help this. The Cartwright course ought not long to remain the only one. Indeed, it would be somewhat humiliating to feel that a private citizen of another State, and he not a physician, remained the sole founder of our independent medical lectureships. The Academy of Medicine is rapidly growing in membership and prosperity. The profession will look to that Society to follow the example of the Alumni Association of the College of Physicians and Surgeons.

THE PHARMACOPŒIAL CONVENTION.

The Pharmacopœial Convention held in Washington was in every way a success. It was thoroughly rep-

resentative in character, was perfectly harmonious in its deliberations, and the results of its labors will be hailed with satisfaction by all interested in the progress of pharmacy and therapeutics. The appointments upon the different committees were eminently judicious, and there is every reason to believe that the necessary work will be thoroughly and promptly done.

Reviews and Notices of Books.

A Text-Book of Physiology. By M. Foster, M.A., M.D., F.R.S., Prælector in Physiology, and Fellow of Trinity College, Cambridge. With illustrations. Third Edition, Revised. New York: Macmillan & Co. 1880.

The established reputation of this author, and the demand for a third edition of the present work so quickly after the publication of the revised and illustrated second edition, places the text beyond the reasonable reach of the general reviewer. It is a book that leads the reader into the higher walks of physiological study, and its proper place is, really, in the hands of the advanced student in this most pleasing department of scientific observation and research. The most important changes in the third edition are to be found in the section on Muscle and Nerve, which has been rearranged with the hope of rendering a difficult subject easy to be understood. He who begins the study of this section, however, will soon become convinced that the average student will not have an easy task to master or even reach a clear conception of the problems involved in it, although there can be no question that the author has presented us with the simplest and the most intelligent statement yet given. The technique of the author is of the highest order, and he does not in the least compromise it to suit the variable capacity of his readers. All must go up to his standard, or they will get confused in their study. The tendency of the book, therefore, is to enlarge the views of the student in physiology; and this tendency is manifested not only from a purely physiological point of view, but by occasionally leading the reader up to the door which opens into the citadel of consciousness and intelligence, and, for a moment, standing and querying with him as to what is within.

The theory of "motor" centres and "localization of function" is discussed in a concise and pleasing style, and, without committing himself by dogmatic statement, the author carefully analyzes the latest observations of the best observers.

The graphic method, which has raised experimentation to almost the dignity of exact science, pervades the book, and enhances its intrinsic value. Mathematical accuracy, applied to physiological experiments, has already lifted the science to a plane of exactness hitherto unattained, and may yet yield results which shall be revolutionary. The volume contains about 800 pages, is printed in good-sized type, and is well worthy of a place in the library of every medical man who wishes to march in the vanguard of his profession.

Pharmacology and Therapeutics; or, Medicine Past and Present. The Goulstonian Lectures delivered before the Royal College of Physicians in 1877. By T. Lauder Brunton, M.D., F.R.C.P., F.R.S. London: Macmillan & Co. 1880.

This, the latest work from the pen of the well-known author, is so good, that we cannot help regretting it is no better—better and more comprehensive. For it must be admitted, that a small octavo volume, with 196 pages of reading matter in very large print, can scarcely suffice to give the reader a fair idea of either "pharmacology and therapeutics," or "medicine past and present." There is too much title and too little vindication for it. In his preface, the author states that the lectures have been divided into chapters, and some slight additions made to them. With more copious additions, the character of the work might have been greatly improved. The reader is first presented with a short historical résumé of the various methods by which the study of medicine has been pursued in the past. This portion of the book, comprising 94 of the 196 pages of subject matter, clearly proves the author's careful study of such excellent works on the history of therapeutics as Petersen's "Hauptmomente," etc., Curt and Sprengel's comprehensive treatise, and Wunderlich's manual. The remaining chapters form short but pithy essays on somewhat heterogeneous subjects. They treat successively of pharmacological methods, pathology, therapeutics, respiration, digestion, and the action of ferments or enzymes in forming tissues. These chapters are rather arbitrarily selected from the broad domain of scientific medicine, to illustrate the author's peculiar views regarding the subjects treated of. Chapters six and seven contain valuable information concerning the action of cascara bark. The author concludes, from his experimental investigations, that cascara is more powerful and better than digitalis. He thinks it quite possible that "it may succeed in those cases of advanced mitral disease where digitalis fails." At the same time, we are cautioned that the drug may disturb the digestion and cause an unpleasant surprise if carelessly given.

The chapters on respiration and digestion are physiological essays, with occasional allusions to pharmacology and therapeutics. But though by no means peculiarly appropriate to a work purporting to treat of "medicine past and present," they form interesting reading matter, and contain some practical suggestions addressed to the practitioner. In his concluding chapter, Dr. Brunton very aptly observes, that "facts all seem to point to ferments or enzymes as the agents by which the tissues are built up and pulled down in that constant change which continues during life, and the action of drugs upon these enzymes is becoming one of the most interesting questions in pharmacology." The book contains good, though brief descriptions of the mode of action of some few drugs, together with an adequate rationale of the indications for their employment in disease. The historical analytical portion of the work is a creditable compilation, from trustworthy sources.

A Practical Treatise on Nervous Exhaustion (Neurasthenia). By George M. Beard, A.M., M.D., Fellow of the New York Academy of Medicine; of the New York Academy of Science; Member of the American Neurological Association; of the American Medical Association; of the New York Neurological Society, etc., etc. New York: William Wood & Co., 27 Great Jones Street. 1880.

This book contains 193 pages, which are devoted to the description and treatment of a functional ner-

vous disorder that heretofore has not had full recognition by the medical profession. It is doubtless true that, if one hundred physicians were asked consecutively, if they knew what nervous exhaustion is, they would all answer in the affirmative; and, it is equally true that not more than five per cent. of that number can give an intelligent description of the condition, that is, such a description as would impress either the student or the practitioner that they were familiar with its differential diagnosis. To aid in making a differential diagnosis of the affection is one of the objects of the present book. The author has presented his views in five chapters, which embrace a thorough description of the symptoms of neurasthenia, a harmonizing of the complex developments and manifestations of the malady, and indications with reference to its pathology, rationale, prognosis, sequences, treatment, and hygiene. It is a presentation of the author's researches since he gave his first contribution upon the subject to the profession in a paper read in 1868. Skeptical, indeed, have his hearers been, and still skeptical does the larger portion of his audience remain, when they attempt to seize and bring into scientific grouping the functional phenomena of the nervous system, and why? Simply because a confusion of ideas, and the tendency of the partially trained mind everywhere, drives the general practitioner and many specialists either into the unscientific denial of the existence of such symptoms, or to the rejection of what cannot be confirmed by the ears or eyes. Dr. Jewell, of Chicago, the accomplished editor of the *Journal on Nervous Diseases*, touches the keynote in this department of investigation, when he says that, "inference is almost habitually placed at a disadvantage as compared with direct sense, observation, and practical demonstration. But this arises out of wrong conceptions as to its nature and value, as well as an overestimate of the dependence which we may legitimately place on the 'evidences of the senses.'" In other words, the great tendency, conservative, therefore commendable in certain departments, is to ignore what cannot be demonstrated by the aid of such modern appliances as the microscope, the spectroscope, etc., well calculated to supplement the defects of the senses. At the same time, all intelligent observers admit that there are human nervous phenomena which are real, and yet which have not been, and perhaps never will be, explained by any material change within the reach of finite research.

Dr. Beard has gathered a group of symptoms that he believes characterize a condition which he calls *neurasthenia*. In the second chapter of his book these symptoms are given with great precision. Their name is legion. Many of them are sufficiently eminent to be almost worthy of the designation of separate affections. But the reviewer believes that the author has done wisely in retaining them in the group of symptoms, when they appear as the leading features in certain cases, while, in other cases of the parent malady, they may not be present.

The third chapter contains an account of the nature and diagnosis of nervous exhaustion, or neurasthenia. This is, perhaps, the most important chapter in the book. It is here that the reader finds the peculiar features of neurasthenia pointed out, and brought in contrast with those usually recognized as belonging to hypochondriasis and hysteria, the affection with which, of all others, it is probably most likely to be confounded. Hysteria, hypochondriasis, and malaria, form a scapegoat tripod whose legs are sufficiently long to stand astride of a gigantic mass of ignorance, and by the addition of syphilis, a quartet is formed that can sing a most acceptable requiem over any obscure visitation of disease and death. All intelligent practitioners have failed to see the reasoning hypochondriac, or hysteria associated with a well balanced mental organization in other than very exceptional cases. The neurasthenic patient, on the other hand, is cognizant, usually painfully cognizant of the fact that he is bound hand and foot by impressions which his reason teaches him are fallacious, and yet he is held in abject slavery by them. In many cases, happily, reason overcomes the tendency to do the bidding of this would be master, and in the mental conflict overcomes and gives the patient an apparent, only an apparent, victory, and he goes out, or goes across a bridge, or visits a friend, although constantly goaded by his cerebral tormenter. That certainly is neither hypochondriasis nor hysteria.

The fourth chapter contains the author's views regarding prognosis and sequences of neurasthenia, and the fifth contains the treatment and hygiene of the disease.

The book is written in the author's usual lucid style, and exhibits the results of original research in a most interesting department of medicine. No one can successfully deny that new light has been shed upon a class of cases with which every practitioner meets, and which have heretofore been uniformly regarded as "rather obscure." The ultimate result will be—it may be in the far distance—that the author's views will be substantially accepted. They may be modified, they may be elaborated; doubtless they will be, but "that there are aspects of nervous and mental disease in which the patient is fully aware of a certain tendency to mental aberration and to false perception, or to acts of impulsive eccentricity, and yet corrects the tendency by a deliberate process of reasoning," we believe will sooner or later come to be generally admitted.

The medical world owes to Dr. Beard its warmest admiration for the really good work which he has done in this special investigation made in the neutral space between clear physiological and pathological conditions. Every well-trained microscopist knows that one of the difficult things to do in certain cases is to determine where physiological granulation of the renal epithelium ceases, and pathological granulation begins; and yet, the patient who carried such kidneys was a sick man. So it is with regard to the symptoms and phenomena referable to the human nervous system, and any honest labor which will force the portals a little ajar, and give us even a peep into the mysterious chamber, should be received with commendation.

The book presents the well known care and neatness with which its publishers do their work.

STUDENT'S PRIMER ON THE URINE. By J. TRAVIS WHITTAKER, M.D., Glasgow. Small 8vo, pp. 75. Philadelphia: Presley Blakiston. 1880.

THIS little book, designed more especially for the use of hospital physicians and clinical students, in its limited way, is certainly an excellent one. It contains all that is needful and indispensable for ordinary purposes of urine examinations, and, what is better still, it contains nothing but this. The author is also an artist, and deserves credit for the admirable clearness and neatness of most of his copper etchings. Some of the latter are, however, rather deficient in the details of execution. Plate XVI. for example, showing fragments of hair, feathers, various animal

and vegetable fibres, fails to give an adequate idea of the characteristic appearance of these structures, which so frequently puzzle beginners. Of course, this small volume cannot presume to replace the larger standard works on this important subject, but as a student's primer we hasten to welcome its appearance, according it the commendation which it seems to deserve.

ANIMAL VACCINATION. A Preliminary Report on an Investigation of the Results of Vaccination from the Calf. By ERNEST HART, Esq. With a report of the proceedings of the conference. London: Office of British Medical Association. 1880.

THIS Report was first published in *The British Medical Journal*, and has already been noticed to some extent in these columns. It represents the results of a very conscientious and exhaustive investigation on the part of Mr. Hart, who, as Chairman of the Parliamentary Bills Committee of the British Medical Association, did most of the work. The whole report, with its accompanying discussion, however, shows that the profession in England are entirely behind us in America as regards the subject of animal vaccination. We have learned its usefulness and superiority, mastered its difficulties and adopted it practically in this and many other large cities. The present report gives a great deal of interesting information as regards the mode and prevalence of vaccination in various parts of the world, and its conclusions, favoring animal vaccination, are correct as far as they go, and in accordance with our views and practices. More practical points, however, can be gained from reading the circular on vaccination of the New York Health Board than from a laborious study of the report before us. It seems probable that the English Government will introduce animal vaccination, and it will soon learn by actual experience, as we have done, its value, its difficulties, and its limitations.

TRANSACTIONS OF THE WISCONSIN STATE MEDICAL SOCIETY, Milwaukee, June, 1879.

THE superior typographical appearance of this volume prepossesses the reader in its favor, and an examination of its contents does not disappoint one. The papers and discussions are all of much interest, and some show a great deal of study. This is notably the case with the address of the President, Dr. Nicholas Senn, upon Medical Legislation. Dr. Senn treats the subject historically as well as critically, and his work is full of interesting facts. There is a very fully illustrated article, by Dr. J. S. Meachem, upon New and Improved Instruments. A Report upon Diphtheria by Dr. Marston brings out many facts of local and general interest. Dr. J. K. Bartlett gives a full report upon Obstetrics and Gynæcology. The utility of forceps and of chloroform in labor are, to a considerable extent, indorsed. In a paper on the Pathology of Scrofulides and Syphilides, Dr. R. H. Williamson draws the pathological and clinical distinctions between these two affections, with great clearness. There is a very practical article upon New Remedies by Dr. Henry P. Wenzel. Several articles upon Ovariotomy are contributed. The Society elected Dr. J. G. Meachem President, and Dr. J. T. Reeve, of Appleton, Secretary and Treasurer for the ensuing year.

TRANSACTIONS OF THE TENTH ANNUAL SESSION OF THE MEDICAL SOCIETY OF VIRGINIA, at Alexandria, Oct. 21, 22, and 23, 1879.

THE President, Dr. L. S. Joynes, in his opening address, states that the membership of the Society is now 400, which is about one-fourth of the whole number of physicians. He laments this fact in view of the great benefits that medical societies confer when properly supported. Dr. Joynes makes an eloquent defence of the country practitioner, and of the medical profession in general.

The Society has adopted the excellent plan of introducing reports on the progress of medicine in its various branches. These reports make up a large part of the present volume, and add greatly to its value.

Among other papers are that of Dr. H. P. C. Wilson, on Paquelin's thermocautery and the antithermic shield, and that of Dr. J. Marion Sims on the diagnosis of abscess of the liver by symptoms of cerebral hyperemia.

The annual address to the public and profession, by Dr. Oscar Wiley, is a thoughtful and earnest effort.

The officers for 1879–80 are: President, Dr. Henry Latham; Recording Secretary, Dr. Landon B. Edwards, of Richmond; Corresponding Secretary, Dr. Christopher Thompkins, of Richmond; Assistant Recording Secretary, Dr. Charles S. Brittan; Treasurer, Dr. Landon B. Edwards.

PROCEEDINGS OF THE LOUISIANA STATE MEDICAL ASSOCIATION, April 9, 10, and 11, 1879.

THE bulk of the matter contained in this volume is, quite naturally, devoted to the questions of hygiene and yellow fever. The address of Dr. Chaillé upon state medicine is a particularly able piece of work, and ranks far above any similar effort that we have seen for a long time.

A very long and exhaustive article upon the comparative pathology of malarial and yellow fevers is contributed by Dr. Joseph Jones. Other articles, as that of Dr. L. T. Salomon, upon leprosy, have already been quoted or discussed in this journal.

The officers elected for the ensuing year were: For President, Dr. J. W. Dupree; seven vice-presidents, a Recording Secretary, Dr. Thomas Layton; a Corresponding Secretary, Dr. S. S. Herrick; Treasurer and Librarian, Dr. Geo. K. Pratt. The Society now numbers 106 members.

SEVENTH ANNUAL REPORT OF THE NEW HAVEN BOARD OF HEALTH. 1879.

THE annual mortality in New Haven from zymotic diseases has been gradually reduced from 394 in 1876 to 163 in 1879. New Haven is now claimed to have the lowest death-rate of any seaport town in the world of its size. These facts are sufficient to show the city board of health is an efficient one.

ON A CASE OF MOLLUSCUM VERRUCOSUM. By JAMES NEVENS HYDE, A.M., M.D. Reprinted from *The Edinburgh Medical Journal*.

DR. HYDE presents the history of this rare and curious form of skin-disease. The diagnosis of its true character involved the settlement of some very nice pathological questions, and led the author into a very exhaustive investigation.

SOME OBSERVATIONS CONCERNING THE VALUE OF THE AUDIPHONE. By H. KNAPP, M.D. Reprinted from the *Archives of Otology*.

DR. KNAPP gives the details of a number of cases in which he has tried the audiphone, and compared it with a dipper shaped ear-trumpet of his own inven-

tion. His conclusions are, that the Rhodes audiphone produced no increase in the acuteness of hearing in 20 per cent., a slight increase in 20 per cent., a moderate increase in 60 per cent. The dipper shaped ear trumpet produced increase of hearing in all cases, slight in 8 per cent., moderate in 45 per cent., great in 48 per cent. The audiphone has some value, therefore, but less than the ear trumpet.

Report of the Resident Physician of the Bingham Hall Hospital for the Insane. 1879.

This report shows a small but evidently well conducted hospital. No statistics are given, however, which enable one to give the results of treatment. The resident physician, Dr. D. B. Burrell, estimates that about one-fifth have reasonable prospects of recovery.

Eleventh Annual Report of the Willard Asylum for the Insane. 1879.

The Willard Asylum is the largest institution for the insane in the country. It contains at present 1,800 chronic pauper insane. Under Dr. Chapin it has always been excellently managed, and the present report shows that he is continuing his good work. During the year fifty-four patients were discharged improved and five cured. The general condition of the other patients has been good, as shown by the mortality rate, which is less than four per cent. The patients are employed to as great an extent as possible, and their work upon the farm and indoors earns for the Asylum twenty-five cents per day for each person, reducing the per capita cost to $2.40 per week. The trustees recommend the erection of one more group of buildings to accommodate the demand for more room. Such new buildings would increase the capacity to 2,000, a number which the trustees believe could be well cared for, and at a cost slightly less than the present per capita rate.

Twentieth Annual Report of the New York Dispensary, 1879.

The number of cases treated in this dispensary during 1879 was 26,944; in 1878 it was 38,051; and in 1877, 43,623. The decrease has been caused, it is believed, by the introduction of the small fee system and by the more rigid exclusion of unworthy applicants for relief. To this might be added the multiplication of other dispensaries and the increased business prosperity. The receipts from patients' fees amount to $4,352.27. And of all the applicants only 3½ per cent. of the males and 6½ per cent. of the females were unable to pay. A new feature in the dispensary work is the employment of a district nurse to help carry out the orders of the physicians. Much good has been done in this way.

Bromide of Ethyl, Its Physiological Action. By Isaac Ott, A.M., M.D. Reprint from *Detroit Lancet*.

This pamphlet embraces the results of some quite extended original investigations by Dr. Ott. They form a valuable contribution to our knowledge of the physiological action of the new anæsthetic. The writer's experiments were made upon frogs and rabbits. His conclusions are:

1st. That bromide of ethyl increases the pulse by direct stimulation of the heart itself.

2d. That it increases the blood-pressure, either by stimulation of the spinal or peripheral vaso-motor system.

3d. That it decreases respiration by central action.

An Improved Method of Treating Depressed Fractures of the Nasal Bones. By Lewis D. Mason, M.D.

In this reprint from the *Annals of the Anat. and Surg. Med. Society*, Dr. Mason recommends the passage of an ordinary surgical needle of medium size, transversely, through the nose, so that it shall afford not only a posterior support to the nasal bones, but will act as a thread, holding together the sides of the nasal arch. Several cases illustrate this method, which is an original and apparently very useful one.

Notes on the Anatomical Relations of Uterine Structures, etc. By T. H. Buckler, M.D.

"A muscular muscle, arranged around the lower third and the neck of the uterus like an elastic garter, particularly liable to irritation and subsequent contraction, having direct power to impede the venous flow, and yet too weak to control the arterial circulation, becomes, by arresting the return blood and backing it on the womb, the factor of engorgements in the neck and body of the uterus, and, as a consequence, is the cause of procidentia, retroversion, retroflexion and anteversion, according to the part of the womb which is weighted by the hæmatic engorgement."

If the reader can follow the foregoing sentence in its wonderful prolixity, he will understand the basis of Dr. Buckler's new views on uterine pathology. It remains for gynæcologists to decide upon the value of the same.

Clinical Lectures on the Diseases of Women. By J. Matthews Duncan, M.D., etc. Philadelphia: Henry C. Lea. 1880.

In this series of lectures, which were originally delivered to the students of St. Bartholomew's Hospital, Dr. Duncan has by no means gone over the whole gynæcological field, nor has he attempted to treat his chosen subjects exhaustively or in accordance with strict scientific method. He has, however, taken up a number of the most important and practical topics, and he writes about each in an interesting and instructive manner. Such titles as Missed Abortion, Ovaritis, Chronic Catarrh of the Cervix Uteri, Painful Sitting, Aching Kidney, show that he aims more to throw light upon the everyday work of the general practitioner than to make any special contribution to gynæcology.

In discussing the subject of Missed Abortion, Dr. Duncan refers to the causal relation which disease of the heart has to it, and regrets that more definite knowledge of this relation has not been obtained. Speaking of chronic cervicitis, he expresses the belief that its frequency is somewhat overrated, and that it has rivals in this respect in chronic ovaritis, and chronic inflammation of the uterus and ovaries. The treatment which he recommends is the application of zinc-alum in stick form. One application is often sufficient. In the chapter on irritable bladder the importance of distinguishing the difference between irritation and catarrh is insisted on. The author especially commends the use of the vesical sound as a help in settling the question. By it the tenderness, elasticity and size of the bladder are determined, and the diagnosis greatly facilitated. The lecture on Hepatic Disease in Gynecology and Obstetrics is a very suggestive one, but space is lacking for any further quotations. The reader cannot help getting many useful hints from the book.

THE MICROSCOPE AND MICROSCOPIC TECHNOLOGY; a Text-book for Physicians and Students, by HEINRICH FREY, Professor of Medicine in the University of Zurich. Translated and edited by GEORGE R. CUTTER, M.D. Illustrated. Second Edition. New York: William Wood & Co. 8vo, pp. 650. 1880.

IN preparing a second edition of Professor Frey's work, the American editor states that it has been thoroughly revised, that a large amount of new matter has been added; the type improved, and the size of the page increased.

The reputation which this work of Professor Frey's has already obtained makes an extended notice of it now unnecessary. It is one of the standard text-books on microscopic technology, and is universally recognized as such. The present edition will be welcomed for its additions and improved typographical appearance.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF THE STATE OF MISSOURI, Twenty-second Annual Session, May 20 and 21, 1879.

THE contributions to this volume of the State Transactions have for the most part been published already. They need no review now, therefore, and the fact that they have been twice printed is a sufficient commendation.

Of the other articles, the Report of the Committee on Medical Education is a very thin piece of work. The members of the committee evidently went no further than to peruse the announcements of the four State medical colleges. The deans of these institutions reported them all to be at a very high pitch of excellence, and that seemed to satisfy the committee. The Society passed a resolution recommending a greater degree of proficiency in the Arts and Sciences for those intending to become physicians. Thus the matter of medical education was dropped.

The address of the President upon the dangers of popular scientific education is one of considerable merit. It will be noticed, however, that he wanders from the subject proper to the question of homœopathy and its relations to scientific medicine. And he there takes the opportunity of misrepresenting the RECORD and of showing considerable obtuseness and ignorance of the question to which he has strayed. The President would have us make no terms whatever with anything that has borne the name of homœopath. The RECORD has taken the position that, theoretically, there is no reason why a medical man who professes and practises no exclusive dogma should not be received as a regular physician, though he may employ peculiar remedies as part of his therapeutic armory. This position was indorsed by the Committee of the County Medical Society. It is found, however, that practically there are some difficulties in the way of fraternizing with the so-called liberal homœopaths. Nevertheless, the position is perfectly unassailable, and is the only logical one that can be taken. The subject of homœopathy, however, seems to unbalance the usual fine equipoise of the distinguished President of the State Society, and drive him out of logic into a fine frenzy of indignant ejaculation. We regret that his otherwise excellent address should be marred by such an exhibition of narrowness and immaturity.

The officers elected for the ensuing year are, Dr. G. M. B. Maughs, of St. Louis, President; four Vice-Presidents; Drs. A. J. Steele, and W. E. Fischel, of St. Louis, Recording Secretaries; Dr. E. C. Evans of Sedalia, Corresponding Secretary; Dr. A. B. Sloan of Kansas City, Treasurer.

THE CAUSES AND RESULTS OF PULMONARY HEMORRHAGES, by REGINALD E. THOMPSON, M.D., CANTAB. London: Smith, Elder & Co. 1879.

THE author of this little volume has evidently studied his subject with great care, and he presents here the result of considerable original investigation. His work on the whole, however, rather fortifies what is already pretty generally taught, than introduces what is novel. He takes much the same ground on the subject of pulmonary hemorrhage as did Graves, many years ago, that it may produce a tendency to consumption, but is not necessarily a cause of it. In his pathological views the author follows Virchow rather than Bennett. Statistics which he has collected in regard to the ultimate causes of pulmonary hemorrhage show it to be more common in men, and to occur oftener in summer and in foggy, damp weather.

A person specially studying this subject would find much to interest him. To the average reader, however, it will prove rather unsatisfactory.

Reports of Societies.

NATIONAL PHARMACOPŒIAL CONVENTION.

Sixth Decennial Convention, held in the City of Washington, May 5, 6 and 7, 1880.

(Special report for THE MEDICAL RECORD.)

WEDNESDAY, MAY 5TH.—FIRST DAY.—FIRST SESSION.

THE Sixth Decennial Convention for the revision of the United States Pharmacopœia, met in the National Medical College, May 5, 1880, and was called to order at 12 M., by DR. JAMES E. MORGAN, of Washington, D. C.

On motion made by Dr. Robert E. Rogers, of Philadelphia, Dr. Morgan, the only surviving officer of the Convention for 1870, was elected temporary chairman, and DR. D. W. PRENTISS, of Washington, D. C., temporary secretary.

Dr Morgan returned his thanks to the Convention for the honor conferred upon him, and expressed the belief that the proceedings would be successful and harmonious.

COMMITTEE ON CREDENTIALS.

On motion by Dr. R. E. Rogers, the chairman was empowered to appoint a committee of three on credentials, and the following gentlemen were appointed:

Drs. W. S. W. Ruschenberger and A. B. Taylor, of Philadelphia, and Mr. W. S. Thompson, of Washington, D. C.

The Convention then took a recess of fifteen minutes, at the end of which time it was again called to order, and the committee on credentials reported that they had received credentials of delegates from the following organizations:

The Massachusetts College of Pharmacy, the Philadelphia College of Pharmacy, the Louisville College of Pharmacy, the Maryland College of Pharmacy, the Medical Society of the District of Columbia, the National Medical College, Columbian University, the Medical Department of the University of

Georgetown, D. C., the National College of Pharmacy, Washington, D. C., the Medical Department of the University of Pennsylvania, the Massachusetts Medical Society, the Bellevue Hospital Medical College, New York City, the College of Pharmacy of the City of New York, the College of Physicians and Surgeons, Medical Department of Columbia College, the Dartmouth Medical College, Hanover, N. H., the Connecticut Medical Society, the Rush Medical College, Chicago, Ill., the Philadelphia County Medical Society, the State University of Iowa, Medical Department, the Iowa State Medical Society, the St. Louis College of Pharmacy, the University of Michigan School of Pharmacy, the College of Physicians, Philadelphia, Pa., the Medical Department of the United States Army, the University of the City of New York, Medical Department, the Medical Department of Medicine and Surgery of the University of Michigan, the Chicago College of Pharmacy, the Cincinnati College of Pharmacy, the Woman's Medical College, Philadelphia, the Medical College of Indiana, the Medical Society of the State of New York, the College of Medicine of the Syracuse University, the Medical Department of the United States Navy, the United States Marine Hospital Service, the Miami Medical College, Cincinnati, O., the Pennsylvania College of Pharmacy, the Missouri Medical College, St. Louis, the College of Physicians and Surgeons of the City of New York, the Medical Department of Howard University, Washington, D. C., the University of Albany, N. Y., Medical College, the Jefferson Medical College, Philadelphia, the New York Academy of Medicine, the Medical and Chirurgical Faculty of Maryland, Baltimore, the University of Maryland, the Woman's Medical College, New York, the North Carolina State Medical Association.

The delegates from the above organizations were admitted with the exceptions noted below, which received separate action.

On motion of Dr. S. C. Busey, of Washington, D. C., the delegates from the Medical Departments of the Army and the Navy and from the Marine Hospital Service [not being incorporated organizations] were invited to seats in the Convention, and to exercise all the rights and privileges of the other delegates.

On motion by Dr. Busey, the delegates from the Medical Society of the District of Columbia, technically not a State organization, were admitted to the Convention.

Dr. Robert E. Rogers, of Philadelphia, moved that the delegates from the Philadelphia County Medical Society be admitted to the Convention. The motion gave rise to considerable discussion, but was carried by a vote of 35 to 22.

COMMITTEE ON NOMINATIONS.

On motion by Mr. Dolber, of Boston, a Committee on Nominations was appointed consisting of one member from each body entitled to representation in the Convention, and each delegation present was empowered to name the respective members of this Committee. The following was the Committee so formed:

S. A. D. Shepard, A. B. Taylor, C. Lewis Diehl, Jos. Roberts, Dr. Antisell, W. W. Johnston, S. C. Busey, R. B. Ferguson, H. C. Wood, E. S. Wood, F. A. Castle, Charles Rice, E. Curtis, H. M. Field, H. H. Smith, Wm. H. Crawford, H. B. Parsons, I. M. Hays, D. L. Huntington, H. G. Piffard, G. M. Hambright, A. Fennel, Clara Marshall, J. D. Rushmore, G. R. Metcalfe, B. F. Gibbs, Oscar Oldberg, J. F. Judge, M. Roche, O. A. Wall, J. C. Peters, G. S. Palmer, Robert E. Rogers, Laurence Johnson, W. J. C. Du Harnel, G. H. Fox, Thomas F. Wood.

The Convention then took a recess until 3 P.M.

FIRST DAY—SECOND SESSION.

The Committee on Nominations being ready to report, the Convention was called to order at 3.30 P.M. by Dr. Morgan, and the following report was made:

For President, Dr. Robert Amory, of Brookline, Mass.; for First Vice-President, Dr. S. C. Busey, of Washington, D. C.; for Second Vice-President, Prof. P. W. Bedford, of New York; for Secretary, Dr. F. A. Castle, of New York; for Assistant Secretary, Prof. C. H. A. Kleinschmidt, of Washington, D. C.

On motion by Dr. Rogers, of Philadelphia, the report was accepted and adopted.

Dr. Amory, President elect, then took the chair, and thanked the Convention for the unexpected honor it had conferred upon him.

Prof. Maisch, of Philadelphia, moved that Dr. E. R. Squibb be admitted to the floor of the Convention, with the rights and privileges of a delegate. The motion was heartily seconded by Dr. Rogers, of Philadelphia, and was unanimously adopted, the Convention taking a rising vote.

Dr. Squibb made an appropriate response.

On motion by Dr. Busey, the thanks of the Convention were extended to Dr. Morgan for his justice and impartiality as temporary Chairman, and to Dr. Prentiss for his faithfulness as temporary secretary.

On motion by Dr. Parvin, the minutes of the last Convention were read by title.

Prof. A. B. Taylor, Secretary of the last Convention, then made his report in writing, which was received and adopted.

PRESENTATION OF REPORTS.

Reports were received from the following organizations:

Philadelphia College of Physicians, Philadelphia College of Pharmacy, Maryland College of Pharmacy, Louisville College of Pharmacy, American Pharmaceutical Association, Pennsylvania Pharmaceutical Association, Philadelphia County Medical Society, National Medical College, and the National College of Pharmacy.

On motion by Dr. C. L. Diehl, the President of the Pennsylvania Pharmaceutical Association, Mr. C. B. Heinitsh was invited to a seat in the Convention, with the rights and privileges of a delegate.

Prof. Maisch introduced the following resolutions, which were adopted:

Resolved, That the Committee on Nominations be instructed to nominate a committee of revision and publication consisting of ——— members.

Resolved, That the Committee on Nominations be instructed to report a plan for revising and publishing the Pharmacopœia, and to make provision for the revision of the United States Pharmacopœia in the future.

On motion by Dr. A. B. Taylor, the Convention directed that the Committee consist of *twenty-five* members.

The Convention then adjourned to meet on Thursday, May 6th, at 12 M.

The Convention was called to order at 12 M., May 6th, and adjourned to 2 P.M. It was called to order at 2 P.M., and adjourned to 10 P.M.

THURSDAY, MAY 6TH—SECOND DAY—EVENING AND MORNING SESSION.

The Convention was called to order at 10 P.M., by the President.

Dr. James L. Cabell, of the University of Virginia, was elected as delegate to the Convention.

REPORT OF THE COMMITTEE ON NOMINATIONS.

The report of the Committee on Nominations being in order, it was first read, and then the items were considered seriatim.

The following gentlemen were nominated and elected as the *Committee of Revision and Publication of the Pharmacopœia of the United States.*

The President, Robert Amory, of Brookline, Mass.; the Secretary, F. A. Castle, of New York; D. L. Huntington, U. S. A.; B. F. Gibbs, U. S. N.; O. Oldberg, U. S. Marine Hospital Service; P. W. Bedford, of New York; C. Lewis Diehl, of Louisville, Ky.; Louis Dohme, of Baltimore, Md.; Thomas Doliber, of Boston; Laurence Johnson, of New York; J. F. Judge, of Cincinnati, O.; John M. Maisch, of Philadelphia; G. F. H. Markoe, of Boston; H. B. Parsons, of Washington, D. C.; H. G. Piffard, of New York; J. P. Remington, of Philadelphia; Chas. Rice, of New York; W. S. W. Ruschenberger, of Philadelphia; E. R. Squibb, of Brooklyn; A. B. Taylor, of Philadelphia; W. S. Thompson, of Washington, D. C.; O. A. Wall, of St. Louis, Mo.; E. S. Wood, of Cambridge, Mass.; T. F. Wood, of North Carolina; and T. G. Wormley, of Philadelphia.

The committee was empowered to fill its own vacancies, and also to employ skilled experts.

The items of the report read and adopted were those found in the report on the Revision of the United States Pharmacopœia, preliminary to the Convention of 1880, prepared and compiled by Charles Rice, Chairman of the Committee of the American Pharmaceutical Association, on the revision of the United States Pharmacopœia, with some amendments. They related to language, alphabetical arrangement, synonyms, cross references, description of crude drugs, description of chemicals, chemical formulæ, processes for chemicals, expressions of quantity, numerical relations of quantities, fluid extracts, temperature, definition of physical properties, specific gravity, definite expressions of weight, weight of finished product, and tables to be appended to the Pharmacopœia.

The following were added: That all doses be omitted from the Pharmacopœia, a table of saturations, and the committee was empowered to add such other tables as might seem advisable.

A resolution that *parts by weight* be adopted in the formulæ of the Pharmacopœia was adopted.

INSTRUCTION RELATING TO PUBLICATION.

The Committee of Revision and Publication was instructed to award the publication of the Pharmacopœia of the United States to the publishing house offering the best terms; the committee to hold the copyright, the price of the work to be limited, and the book to be sold through the ordinary trade channels. The action under this resolution shall be bound by a majority vote of the whole committee. The committee was also authorized and directed to publish a supplement to the Pharmacopœia at the end of five years, or oftener, if necessary.

The report, as a whole, was then adopted by the Convention.

Several resolutions were then passed, extending the thanks of the Convention to those by whom it had been entertained, to the press, and to the officers of the Convention.

The roll was then called and seventy-four delegates responded.

DR. J. MINIS HAYS, of Philadelphia, moved that the names of the delegates from the College of Physicians and Surgeons, in the city of New York, be stricken from the roll. Unanimously tabled.

DR. HAYS also questioned the legality of the seats of the delegates from the New York Academy of Medicine.

DR. BUSEY, of Washington, then moved that the delegates from the New York Academy of Medicine *are* entitled to seats in this Convention. Unanimously carried.

The Convention, at 1.45 A.M., May 7th, adjourned.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, April 26, 1880.

DR. A. E. M. PURDY, PRESIDENT, IN THE CHAIR.

THE SOCIETY was called to order at eight P.M. by the President, and the minutes of the previous Stated Meeting were read by the Secretary, DR. F. A. CASTLE.

The report of the Comitia Minora, based upon a careful consideration of the merits of the case, and a legal opinion given by Judge Fancher, recommending Mrs. Carrie L. Black for membership, subject to the approval of the Society, was, on motion made by DR. ELLSWORTH ELIOT, laid upon the table.

The Society then took a recess for ten minutes.

During the recess, the organization known in its charter granted in 1807, as the

COLLEGE OF PHYSICIANS AND SURGEONS,

was called to order, and Dr. A. E. M. Purdy was elected Chairman, and Dr. F. A. Castle Secretary.

The Society, entitled to send delegates to the National Pharmacopœial Convention, to be held in May, 1880, proceeded to the election of three delegates to represent it in the next convention, and Drs. John C. Peters, Laurence Johnson, and Leroy M. Yale were chosen. The Society then adjourned.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK

was again called to order by the President, and in the absence of its author, DR. ALLAN MCLANE HAMILTON, the Secretary proceeded with the reading of a paper

ON THE USE OF NITROUS OXIDE GAS IN CERTAIN DISEASES OF THE NERVOUS SYSTEM.

After a review of the literature of the subject, in which the credit was given to Dr. J. L. Blake for first directing attention to the agent in this country, the author passed to the consideration of the use of the agent in certain conditions in the insane, particularly the depression of melancholia. In these cases, according to his experience, it had improved the circulation, increased the warmth of the extremities, increased the brilliancy of the eye, and given at least marked temporary benefit. He then referred to its use in the treatment of severe sick headache, various neuralgias, sciatica, insomnia in consequence of overwork, hypochondriasis, functional heart trouble, chlorosis, tobacco and opium nervousness, and in most cases it had proved beneficial. For the sleeplessness dependent upon excitement, or congestion, and with cardiac hypertrophy, it was not beneficial. Indications of excitement or organic cardiac disease contraindicated its use. He had not used it in epilepsy, although he had no doubt that it would be serviceable. In only two cases had he seen any unpleasant effects, and he used it according to Dr. Blake's method, which was described by

Dr. Blake, who regarded the agent as a diluted gaseous diffusible, stimulant tonic. The manner in which it operated seemed to be as a diffusible stimulant, with no tendency to subsequent depression or reaction, when given so as *not to produce any evidence of anæsthesia*, and that was what was to be understood by his method. It was possible to administer it in small doses, so as to produce a gentle tonic influence. Dr. Blake then exhibited a portable apparatus for administering the gas, which placed the agent completely under the control of the physician. He thought, however, it would not be used in the office of physicians in general on account of the expense. The first evidence of intoxication was the blush of the face, and as soon as that appeared, more atmospheric air should be admitted. He had used it in insane melancholia with good results, and in a variety of other affections.

Dr. A. E. Macdonald remarked that certainly, so far as its temporary benefit was concerned, he could speak favorably of the agent. He had not used it sufficiently long to enable him to judge of the results that could be obtained with reference to final recovery. Its use was indicated in cases of depression with tendency to melancholia, especially with an epileptoid condition. In cases of excitement or frenzy, he thought its use was contraindicated. He then referred to two cases of melancholia in which the patients refused to take food for three and six weeks respectively, and after taking one or two gallons of the gas, they went to the table of their own accord and took a good supper. For slight surgical operations among the insane, it answered a good purpose, especially and above all in uterine cases.

Dr. Beard referred to the fact that physiological experiments had given the general conclusion that the effect produced by the gas was temporary, although of a decided character. He thought that, as a rule, the results would be more temporary than permanent. He also believed that it was agreed to by most that remedies given by inhalation, save those administered for local effects, disappointed us with reference to final results. But everything which assisted temporarily was to be heartily welcomed. The single symptoms, insomnia and depression, were so prevalent that if we could have something to remove them readily, it might tide the patient over the point, perhaps, of committing suicide, and in that way the agent might be very beneficial.

Dr. Goodwillie referred to the purity of the gas as now generated, and also remarked that if the border-line between stimulation and anæsthesia was crossed, the good effect of the gas was lost. The point of anæsthesia should not be reached if the stimulant effect was to be retained. The circulation in the lobe of the ear, together with the respiration and general aspect of the face, were what he relied upon in determining when the person was approaching anæsthesia.

ON THE USE OF CERIUM OXALATE FOR THE RELIEF OF COUGH

was the title of a paper then read by Dr. Honart Cheesman. The paper had already been presented to the Therapeutical Society, and was noticed in connection with the proceedings of that Society. (See Record, p. 492.)

The Society passed a resolution instructing the Comitia Minora to defray the travelling expenses of the delegates to the Pharmacopœial Convention, to be held in Washington, D. C., in May, 1880, and then adjourned.

Correspondence.

THE ALLEGED CURE OF CATARACT BY ELECTRICITY.

To the Editors of The Medical Record.

Sirs:—In Virchow's Archives for March, 1880, page 474, in an article by Dr. Wm. H. Neftel, New York, is found the following statement: "Mrs. M——, a lady 62 years of age, of pretty good health, except that she suffers from sciatica and rheumatic pains, had complained for a year of gradual impairment of vision. At first she could not see distant objects plainly, then reading became impossible, and finally she was unable to see plainly larger objects. She consulted at different times two of the best ophthalmologists in New York, Drs. Agnew and Webster, who made the diagnosis of cataract of both eyes, but advised that the operation be deferred until the cataract became ripe. On July 26th I commenced the galvanic treatment in the following manner." The doctor then goes on to tell how, and how often, he applied the galvanism. "After each sitting the patient declared that she could see more plainly. After one week she declared herself able to read coarse print pretty well, and after two weeks she could read quite small type. After twenty-five applications the treatment was discontinued. The patient declared that not only had she recovered her earlier seeing power, but also needed weaker spectacles than before. Additionally, she received, at various times, some ten applications. After ending the galvanic treatment, the patient again presented herself to Dr. Agnew for examination, who now could find nothing abnormal either in the structure or in the functions of the eyes; at least he could discover no trace of opacity of the lens or its capsule. These conditions remain unchanged up to the present time."

The following are our notes of the case of Mrs. M.:

"July 24, 1878.—Mrs. M., æt. 62, eight years ago had some inflammation in her eyes, and 'everything had a rainbow,' and nothing would allay the inflammation but hot water. Since that they get tired easily. Vision, $\frac{2}{3}$ each eye, without a glass. With her own glasses, for the distance $+\frac{1}{4}$, right eye sees $\frac{1}{2}$ and left eye $\frac{2}{3}$. With $+\frac{1}{2}$, each eye has vision $\frac{1}{1}$. Mrs. M. states that she did not use glasses until 52 years of age. Her reading glasses are $+\frac{1}{2}$; she reads better with $+\frac{1}{4}$. Ophthalmoscopic examination shows incipient cataract, more advanced in left eye. Ordered $+\frac{1}{4}$ for the distance and $+\frac{1}{2}$ for reading, and advised bathing the eyes with warm water and salt (℥i. to Oj.).

"Oct. 22, 1878.—Mrs. M. again called upon us, after having had her course of treatment by Dr. Neftel. The note made by us at that date is, 'no apparent change since last visit' (July 24, 1878).

On the 15th of April, 1880, Dr. Webster made a careful examination of the eyes of Mrs. M., without dilating the pupils, and found that there were large masses of opacity in the lower periphery of the left lens, and a prominent streak of opacity extending upward and outward nearly to the centre of the lens. He found that minute opacities existed in the periphery of the right lens. He found that Mrs. M. could read Jaeger No. 1 at about fourteen inches through her spectacles, and as easily with the left eye as with the right one.

It will be observed, then, that Mrs. M. had incipient cataract when she first came to see us on the 4th of July, 1878; that she had incipient cataract on the 15th of April, 1880. In the interval between those two dates she had received galvanic treatment from Dr. Neftel. The vision of Mrs. M. was $\frac{2}{10}$ before her alleged cure, $\frac{2}{10}$ after her alleged cure, and sufficient to enable her to read Jaeger No. 1 at fourteen inches on the 15th of April, 1880. The crystalline lenses, so far as our notes and recollection serve, are now just as they were before Dr. Neftel treated the case with galvanism. The case is simply one of those common ones of stationary or very slowly increasing opacity of the lenses, and we must calmly wait for new light if we are to change our belief that galvanism will not remove opacities of the crystalline lenses. The publicity given to this matter makes it necessary to state the facts.

C. R. Agnew, M.D.
D. Webster, M.D.

THE SUPERVISION OF INSANE ASYLUMS.

To the Editor of The Medical Record.

Sir:—The opponents of the bill to provide an effective supervision of insane asylums in this State, now pending in the Legislature, have made no little use of the statement that in England, where a Lunacy Commission has existed for nearly fifty years, public opinion and the highest authorities have declared in favor of its abolition, and a return to the independent management by local boards, as in this country. Some personal knowledge of the subject, and an examination of the authorities referred to enable me to say that there is really no foundation whatever for this statement.

In his evidence before a Committee of Parliament, in 1877, Lord Shaftesbury, for more than thirty years Chairman of the English Commissioners in Lunacy, objected *to any addition* to the present number of these Commissioners, and favored an increase of visitation by local boards.

Another witness (Hon. F. Scott) spoke of "the confusion of authorities," caused by the number of boards charged with the supervision of the insane. There are now six of these boards, namely: the County Committee of Visitors (corresponding to our boards of managers), the Court of Quarter Sessions, the Board of Guardians, the Home Office, the local Government Board, and the Lunacy Commissioners, besides the three Lord Chancellor's Visitors, whose duties are confined to chancery patients.

It is proposed by Dr. Bucknill, in an address published in the *British Medical Journal* of Feb. 7th to combine three of these supervising boards in two, thus doing away with a single board only; which certainly seems a not too radical or unreasonable change. But this is all, and there would still be, if Dr. B.'s plan were adopted, "two new and enlarged authorities placed over all subordinate authorities having control over the care and maintenance" of insane. The giving up of governmental supervision of the insane, it will be observed, is not even hinted at, and no one acquainted with English opinion upon the subject could for a moment suppose such a change possible.

It is well known to the medical profession that there is at present no authoritative supervision whatever of insane asylums in this country. Their administration is conducted by a board of local managers through their agent the medical superintendent. These managers, the present Commissioner in Lunacy declares, have "franchises given them for the purpose of acting in official capacities, and there is no proper ground upon which the Legislature can intervene," except by general laws "when there is no existing remedy, either under the common or statute law of the State, for alleged wrongs." The chief function of the Lunacy Commissioner is held by himself to be simply that of a special judge for the trial of such of these "alleged wrongs" as may be brought before him according to the proper forms of law.

This may be a correct theory of the constitutional law of the State, and if so the Legislature should be convinced of its powerlessness to provide for any other than a formal supervision of the insane. But to declare that public opinion and high authorities in England have finally come to believe that no governmental supervision is necessary, is a misrepresentation of facts which deserves to be exposed and rebuked.

L. A. Tourtellot, M.D.

Utica, N. Y.

TREATMENT OF ASPHYXIA OF THE NEW-BORN—AMYL NITRITE.

To The Editor of The Medical Record.

Sir:—Dr. W. E. Forest's communication in the Record of the 10th inst., describing his method of resuscitation of asphyxiated infants, prompts me to report a case where, after trial of the usual methods, including Dr. Forest's, resort to amyl had the desired effect. The case is as follows: Mrs. McC——, æt. about 25, mother of three children, two of which are twins, was taken in labor about noon, March 29, 1880. Was called about 4 P.M., and found patient having moderately good pains, in the second stage, breech presenting in the second position, and a long loop of the cord prolapsed and lying between the patient's thighs. The cord was pulsating vigorously, the os perfectly dilated, with the breech engaging.

Due preparation was made for the reception of an asphyxiated infant, warm flannels, hot and cold water, whiskey, etc., were provided—forceps placed within easy reach to extract the head, if necessary. An unsuccessful attempt was made to return the cord to the cavity of the uterus. I could not possibly get my hand past the breech. A foot was then seized and brought down, and the other reached with some difficulty. Some fifteen minutes or more passed before delivery was accomplished, the child being large. The greatest delay occurred in extracting the breech and shoulders, requiring strong traction. With firm pressure on the uterus by a stout nurse, and the determined efforts of the patient, no unusual delay occurred to the delivery of the head. Pulsation of the cord ceased long before the breech was extracted. As may be expected, the child appeared altogether lifeless, its color was very pale, lips colorless, cord bloodless, flaccid limbs, complete muscular relaxation, and no appreciable cardiac action. The cord was cut and tied, and the infant placed in a very warm bath, where it was rubbed and spanked unavailingly; dipped in cold water and returned to the hot alternately for some minutes, when it was taken from the bath, wrapped in hot flannels, and artificial respiration commenced by Sylvester's method, in connection with rubbing it briskly with a little whiskey on the hands, spanking, etc. Direct insufflation of the lungs, by placing my mouth to the mouth of the child, closing its nostrils, and forcing air into its

lungs was also tried some minutes. It was noted by the clock to the room that twenty-five minutes had passed since delivery, and not a gasp had yet been made. There was a trifle more color on the lips to encourage me to proceed, that was all—no pulsation of the heart could be seen or felt.

I then thought of Dr Forest's method, given in the RECORD for December 20, 1878, and trial was made of it for perhaps ten minutes, and finally direct insufflation combined with it, with no better result. It was again taken from the bath, rubbed and spanked some more, its lungs again inflated methodically, and after some minutes of this, its heart could be felt and soon beating, not very fast nor strong, but, do what I could, the infant would make no effort to breathe. It then occurred to me that as the nitrite of amyl is so valuable in chloroform narcosis, possibly it might be useful in the asphyxiated infant. Happening to have some in my pocket, I put two or three drops on my handkerchief and placed it over the child's face, continuing at the same time Sylvester's method. After about a minute had passed, I lifted the handkerchief; the neck, chin, lips, and eyelids had become of a distinct *cyanotic* color, the heart was beating vigorously, and I had not long to wait for the welcome gasp, followed by another, another, and in perhaps five minutes' time respiration could be considered established, to the supreme satisfaction of the patient and husband, and, it is needless to add, myself. The cyanotic hue soon passed away, and in its stead appeared the normal bright red color of the skin.

Again glancing at the clock, I was surprised that nearly fifty minutes had passed. Up to date the infant is thriving and well. I shall not forget to take a little amyl with me to obstetrical cases hereafter, for to that agent I attribute the rescue of this infant, and will not hesitate long in using it again in profound asphyxia.

Respectfully,

C. H. HUMPHREYS, M.D.

BRANDT, O.

THE DETERMINATION OF SEX IN UTERO.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Having recently noticed several articles upon the above subject, I have concluded to make known a singular rational sign by which I have been able to predict, with a degree of success, the sex of the child. In the issue of December 7, 1878, of the MEDICAL RECORD, Dr. Upjohn gives us a theory by which, as he says, he can ascertain to a certainty the sex of the child. This seems to be put in pretty strong language. But this is his statement: "In every case where I can obtain sufficient and accurate data, I am able to predict the sex previous to delivery," and then gives the law by which he does so. "Conception resulting from intercourse *subsequent* to the menstrual flow will result in female offspring; while conception from intercourse in the *latter half* of the menstrual period, or *previous* to the menstrual flow, will result in male offspring."

Dr. Sweet, in the *Medical Brief*, gives three cases, as follows: "Mrs. C —— was recently confined of her second child, the first one being about five years old. In the first instance, her husband, who was a fisherman, came home one night, during an absence of many weeks, just after a menstrual period. She became pregnant that night, and the result was a boy. The next time she had intercourse a few days after her period, and the next day went away for an absence of several weeks. The result of this was a girl.

"Miss I —— was seduced by a young man a few days after her period. She never had any connection with him afterward. The result of this pregnancy was a boy."

In the last two cases cited the time of conception is exactly the same, but the sex is different; and in the first and last cases the result is contrary to the "theory" of Dr Upjohn. I have no disposition to criticise the remarks of either, but will proceed to give my theory and the manner in which I have made my observations. My attention, before I began the study of medicine, was called to the irrational theory that I am about to advance. Obstetricians are all aware of the fact that the areola and nipple change color when in the pregnant state. The difference in the change is the index to the sex. When I first began the practice, I closely observed the areola and nipple to see if I could discern any difference. I found almost invariably that when the sex is male the color of the areola was much darker than when the sex was female. I have a record of thirty-eight births in which I have noted as follows:

19 males: areola very dark (in) color.

1 male: areola very light color.

11 females: areola *not* very dark color.

3 females: areola rather darker than the average female in color.

3 females: areola very light color.

1 female: areola very dark color.

My plan, in order to observe, is to put the child immediately to the breast, not that I expect it to get nourishment in all cases, but to induce contraction and make my observation. It has been my habit to question the woman, and upon her word predict the sex. I have, as the table shows, been deceived but seldom. Five times out of the thirty-eight the rational sign would have been almost a failure. Yet this is better than we are able to do by judging from the time of intercourse previous or subsequent to the menstrual flow. I have never seen or heard this theory advanced before. It may have been done, but not to my knowledge.

S. D. CARLILE, M.D.

PALMYRA, ILL.

BROMIDE OF ETHYL.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I desire to narrate my brief experience in the use of bromide of ethyl, as the anæsthetic in question is attracting so much attention of late.

To-day, I had occasion to perform Chopart's amputation of the foot, upon a patient who had lost the use of that member by reason of an old and irreducible dislocation of the tarsal bones. James Scanlan, æt. 41 years, applied for amputation of his foot, as he thought the operation would afford him better facility for walking. There was great distortion of the tarsal bones—the effect of an old fall; and accordingly, assisted by Drs. Wilcox and Johnson of this city, I proceeded to operate.

The bromide of ethyl was given by myself at the start. One drachm was poured on a towel and held closely to the face. A speedy and pleasant intoxication followed in about one minute. I then added another drachm, when a transient state of muscular excitement followed, which lasted about a minute and which required some restraint. The pulse and respiration were now very frequent, but it was attributed to the muscular spasm just alluded to. Within

three minutes from the beginning of the anæsthesia he patient was thoroughly asleep. I now requested Dr. Wilcox, my house-surgeon, to superintend the further administration of the ethyl, while I proceeded to perform the operation.

Scarcely had I made my incision when Dr. Johnson remarked, "I can feel no pulse at all." I glanced at my patient and saw his face blanched. Almost simultaneously his breathing stopped short. There was now no time for theorizing. The patient was virtually dead. I ordered him to be suspended in the air, head downward; and in this position Dr. Johnson attempted artificial respiration. No response was elicited, however, when I sent for my nitrite of amyl. This was applied in half a drachm dose to the nose, when soon a few feeble impulses were perceptible at the wrist; the face flushed, movements occurred, and we laid him back upon the bed. Within a minute more he was asking us questions.

The ethyl was continued, but not "crowded," but the patient never fell into a thorough sleep after this, and the amputation, etc., were performed in a state of semi-anæsthesia. The patient felt no pain, however, in all the procedure, except at the ligation of the arteries, and on stitching my flaps together. He insisted that the foot had not been amputated, until the stump itself had been shown to him, when he expressed surprise. The operation lasted forty-five minutes, and only during ten of these was anæsthesia complete.

Wyeth's preparation of methylic ether was used. Vomiting early set in and lasted about five hours, but was ultimately controlled by ½ grain of morphine under the skin. Pulse soon after rose to 125 per minute, and the temperature to 101°.

Now, I do not pretend to say that these unfavorable symptoms were entirely due to bromide of ethyl; but I must state that about three months prior to date, this patient underwent urethral dilatation "under chloroform," and stood the operation well. He was somewhat debilitated to-day, however, and was fasting when the operation was performed.

From the foregoing brief experience with methylic ether, I am forced to the following conclusions already:

1st. Dangerous symptoms may manifest themselves during the inhalation of bromide of ethyl.

2d. Cardiac debility and alarming cerebral anæmia can follow the use of the anæsthetic in question.

3d. Unless the ether is "crowded," a state only of semi-anæsthesia must be expected, and

4th. If the agent is "crowded," like all other anæsthetics, dangerous symptoms may instantly appear.

On the other hand, I will add that,

1st. Methylic ether, like nitrous oxide, produces rapid and pleasant insensibility, and

2d. Restoration to consciousness is sooner accomplished from its influence than from either chloroform or ether.

In conclusion, I believe methylic ether to be, when cautiously administered, as convenient if not as safe an anæsthetic in minor operations of surgery, as we have at our command.

Respectfully,

C. H. Wilkinson, M.D.,
Surgeon-in-Charge, St. Mary's Hospital.

Galveston, Texas, April 30, 1880.

To the Editor of the Medical Record.

Sir:—Having noted the favorable mention of, and the definite account and directions given by Dr. Levis in the Record of March 27th, in reference to the bromide of ethyl as an anæsthetic, I determined to give it a trial.

Accordingly, having invited my friends Drs. Folsom and Calderwood, on the 24th ult., we proceeded to remove an encysted tumor from over the mastoid process. The patient was a lady of very nervous temperament, in good health, aged fifty-four. In five minutes after commencing the administration of the ethyl she was thoroughly anæsthetized. In six minutes the operation was commenced. In fifteen minutes the operation was completed. The anæsthetic was removed one minute before the tumor was removed. In sixteen minutes the patient was talking rationally, and had perfect control of all her muscles. In seventeen minutes we informed the patient that we must take some stitches, and that it would give her some pain. This we did, and it gave her *no* pain. The remainder of the day the patient was about her house as usual, feeling no bad effect from the anæsthetic. The pulse came from seventy-two up to eighty-four in the five minutes and there remained. The preparation used was Wyeth's. The quantity was one ounce, but as it was given upon a napkin only, and no measures taken to prevent its evaporation, I am sure the patient did not get even one-half the quantity, as it is very volatile.

Should the bromide of ethyl prove as safe as ether it must be a far preferable anæsthetic, especially for minor and short operations, and particularly for extracting teeth, as there is very little excitement and *no* vomiting.

Since the possibility and perhaps probability that the fatal result in the case in Dr. Sims's hands was due to the ethyl, it must as yet be considered *sub judice*, and must be given with fear and care, especially in operations of any considerable length.

G. B. Bullard, M.D.

St. Johnsbury, Vt.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from May 2 to May 8, 1880.

Wood, M. W., 1st Lieut. and Asst. Surgeon. Granted leave of absence for six months, and at expiration thereof to comply with par. 1, S. O. 74, C. S., A. G. O. S. O. 97, A. G. O., May 3, 1880.

Gray, W. W., 1st Lieut. and Asst. Surgeon. Assigned to temporary duty at Fort Point, Cal. S. O. 55, Div. Pacif. and Dept. Cal., April 27, 1880.

McCreery, George, 1st Lieut. and Asst. Surgeon. Assigned to duty at Fort Apache, A. T., as Post Surgeon, relieving Asst. Surgeon Walter Reed, U. S. A. S. O. 48, Dept. of Arizona, April 16, 1880.

Schué, E. D., 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Grant, A. T., S. O. 48, C. S., Dept. of Arizona.

Cochran, J. J., 1st Lieut. and Asst. Surgeon. Assigned to duty at Ft. Lewis, Col. S. O. 94, Dept. of the Missouri, April 28, 1880.

Medical Students' Union Clubs.—A large meeting of medical students was held in London recently, to consider the advisability of forming a Medical Union Club. The meeting was addressed by Mr. Holden, president of the Royal College of Surgeons. A resolution was passed, that the meeting considered it desirable to establish a Medical Union Club.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 8, 1880.

Week Ending	Typhus Fever	Typhoid Fever	Scarlet Fever	Cerebro-Spinal Meningitis	Measles	Diphtheria	Small-pox	Yellow Fever
May 1, 1880.	0	7	53	9	96	41	0	0
May 8, 1880.	0	11	41	9	76	33	0	0

DEATH OF WILLIAM SHARPEY, THE ANATOMIST.—William Sharpey, M.D., F.R.S., died on April 11th, at the age of seventy-eight years. Dr Sharpey studied medicine at Edinburgh, London, and Paris. He graduated from the Edinburgh school in 1823, and, after a short period of country practice, which he found distasteful, he went abroad again. There he studied at a number of schools in Germany, Italy, and France. Returning to England, he was appointed lecturer on anatomy in the Edinburgh school in 1830. In 1836 he was made professor of anatomy in the University of London. This position he filled until 1874, when advancing years compelled him to resign. From 1861 to 1874, Dr. Sharpey was one of the crown representatives on the General Medical Council.

Dr. Sharpey's principal work was as a teacher and a student of anatomy and physiology. His power to impart the knowledge he had acquired was unrivalled, and his reputation as a professor shed lustre over the school to which he was so long attached. His writings were not numerous, but his contributions to Quain's Anatomy give proof of his powers of exposition, as well as of the extent and exactness of his anatomical knowledge. Other original matter was contributed by him to Todd & Bowman's Encyclopædia. Dr. Sharpey's best work was as a teacher; but he will always take a high rank as an original investigator in the sciences of anatomy and physiology.

CHIAN BALSAM cures cancer. This is the latest.

MEETINGS OF MEDICAL SOCIETIES IN JUNE.—The following State Medical Societies hold their annual meetings in June: West Virginia Medical Society, at Parkersburg, June 2d; Massachusetts Medical Society, at Boston, June 9th; Minnesota Medical Society, at Albert Lea, June 15th; New Hampshire Medical Society, at Concord, June 15th; Ohio Medical Society, at Cleveland, June 15th.

THE AMERICAN NEUROLOGICAL SOCIETY will meet in New York, June 15th.

A BRANCH ASSOCIATION of the British Medical Association is to be established in Canada. The British Medical Association has now branches in all parts of the British Isles, in India and in Australia. It is the largest and most powerful medical organization in the world.

MEDICAL GRADUATES IN CANADA.—Twenty-nine gentlemen have received the degree of M.D., C.M., from the McGill Medical College, Montreal. The Royal College of Physicians and Surgeons has recently graduated thirteen.

AN INCREASE IN THE FEES of the Medical Colleges of the province of Ontario and Quebec is now under consideration. The fees hereafter paid have been ridiculously small, ranging from $5 to $12 a ticket for a single course of lectures.

CHOLERA IN HINDOSTAN.—Deaths, 94; population, 1,142,147.

ETHER is said to have discovered a new anæsthetic.

THE BINGHAMTON INSANE ASYLUM is now being investigated by a committee of the State Senate, on account of alleged abuses and mismanagement.

APPARATUS FOR LOWERING THE TEMPERATURE OF THE BODY.—At a recent meeting of the Académie de Medecine of Paris, M. Dumontpallier described an apparatus for lowering the temperature of the body. It consists essentially of a coil of rubber tubing, which is placed about the trunk, and through which water is run until the temperature in rectum and axilla indicate that a sufficient extraction of heat has been accomplished.

In connection with this apparatus, the *Lancet* reminds its readers that a similar one has been for some time employed by Liebermeister, and will be found figured in the article on "Abdominal Typhus," in the first part of "Eulenberg's Cyclopædia," now in course of issue. The opportunity is not lost of drawing a moral as to the ignorance among Frenchmen of all that is done outside of their own country.

OVARIOTOMY IN ITALY.—According to recently published statistics, out of the first 100 operations of ovariotomy performed in Italy, the recoveries were 37, the deaths 63. Thirty four surgeons did the sanguinary work. The mortality is explained by the fact that the operations were done by so many different men, none of them having any special experience.

PROFESSOR VIRCHOW has been elected, by an overwhelming majority, to represent Berlin in the German Parliament.

THE HOT-AIR CURE FOR CANCER is now rivalling that by Chian Balsam. Dr. G. A. Keyworth, by means of a foot-bellows, drives air through chloride of lime and hot iron tubes, and then throws it against the surface of the cancer. It relieves the pain and the parts are said to dry up considerably.

BOOKS RECEIVED.

WOOD'S LIBRARY OF STANDARD MEDICAL AUTHORS. William Wood & Co., New York:

I. Venereal Diseases and Stricture of Male Urethra, by E. L. Keyes, A.M., M.D., Prof. Dermatology, and Adjunct Prof. Surg., Bell. Hosp. Med. Coll.

II. Foreign Bodies in Surgical Practice, by Alfred Poulet, M.D., Adjutant Surgeon-Major, France. 2 vols.

III. Handbook of Physical Diagnosis, by Dr. Paul Guttman, Berlin. Translated by Alex. Napier, M.D., Glasgow.

A GUIDE TO THE PRACTICAL EXAMINATION OF URINE, FOR THE USE OF PHYSICIANS AND STUDENTS. By JAMES TYSON, M.D. Third Edition. Philadelphia: Lindsay & Blakiston. 1880.

COMMON MIND TROUBLES AND THE SECRET OF A CLEAR HEAD. By J. MORTIMER GRANVILLE, M.D., M.R.C.S. Philadelphia: D. G. Brinton. 1880.

Original Lectures.

THE ERUPTIVE FEVERS.

LECTURES DELIVERED

By ALONZO CLARK, M.D., LL.D.,

PROFESSOR OF PRINCIPLES AND PRACTICE OF MEDICINE, COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

LECTURE III.—SCARLET FEVER—*continued.*

A word now in regard to belladonna. The homœopathic physicians, almost as soon as they became a distinct class, announced that belladonna was the specific for scarlet fever, upon the ground that belladonna given in certain measure would produce an eruption analogous to that which appears in scarlet fever. It was the proper medicine, inasmuch as *similia similibus curantur*, and I believe they hold to it to this day. I have given belladonna a good deal as a remedy. It has a certain degree of soothing effect, but it has no advantages over Dover's powder or an opiate. With reference to its prophylactic effects, there was a good deal in my earlier professional days said about that, and a good many experiments were tried. A colored physician here had charge of the Colored Orphan Asylum, and there was an outbreak there of scarlet fever, and he adopted the plan of giving to every one of the inmates of the institution what he hoped would prove a prophylactic portion of tincture of belladonna. In writing to me, he said that he thought there was a less number of cases than there would have been if the belladonna had not been given; but he did not feel so very sure about that, because all that could be separated from the sick were isolated, not allowed to breathe the same air, and, of course, not allowed to see them.

The principal of a very large school for boys, a good many years ago, at Pittsfield, Massachusetts, had scarlet fever break out in his school, and he gave, under the direction of his physician, to every one of the pupils that were not affected by it, belladonna, either in extract or in tincture. And he did another thing that was a good deal more protective—he separated all the well ones from the sick, kept them in different buildings—and the disease was stopped pretty promptly; and, in talking with him about it, I told him I thought he had not made the experiment fairly. If belladonna is protective against scarlet fever, these boys might have run among the sick just as well as be isolated—shut off from them—but the isolation had been tried a hundred times before, and we knew that that was protective. If no poison had access to the system, the children would not have scarlet fever, and my own impression is that this is about all the prophylaxis there is about it: that if children are not exposed to the poison they will not get the disease. I do not believe belladonna has the power to protect one who is exposed to the poison.

LECTURE IV.—MEASLES.

I CALL your attention now to another of the eruptive diseases—measles. A disease so mild in many cases that the family do not call a physician; and yet so severe in many as to make a pretty large mortality in a city like New York. You will be surprised, perhaps, to hear, if you know anything about the course of measles as it most commonly presents itself, that the mortality here is two, three, or four hundred a year, varying very much; down below a hundred many years, and up to two or three hundred, or more, some years. The explanation of this lies partly in the fact that measles is a more prevalent disease than scarlet fever. If you look into the medical register, or any medical journal that reports the number of contagious cases that occur in the city week after week, you will see almost invariably that measles is two or three times ahead of scarlet fever in the number of cases.

It is, then, sometimes a very grave disease; at other times a very mild disease. I will describe it to you in the same manner that I did scarlet fever, by marking the several stages.

It is only to be had by contagion. It does not arise *de novo*, even from decomposing oat-straw! A western physician made this a source of measles for the young members of the army in the late war; but there is no good ground for the opinion that I can see. Measles is obtained from measles, and from nothing else.

The period of incubation is not definitely fixed. Indeed, it *is* fixed, and we have ascertained that it is *irregular;* that it is uncertain. As for example, Dr. Buell, who lived in New York a good many years ago and moved to San Francisco, recited to a medical society his experience with reference to a house down town, in College Place. College Place was then a place of residence; it is now a place of stores. At a boarding-house there a lady with two or three children was so unfortunate as to have measles break out among them. As soon as it made its appearance, the boarding-house mistress, conscious that it would injure her business by causing other boarders to leave, required this one to go out of the house. The room was left unoccupied for a week, when another family came in to occupy it with children also. In seven days from the time they entered that room measles broke out in the family. The landlady drove this family away and another took its place, and in seven days after the third family came in measles broke out among their children, so that for two particular instances seven days was the period of incubation. But there are other instances that can be quite as well marked in which it goes on to eight, nine, ten, or even to fourteen days. The period is given very variously by the different persons who have written about the disease. As for example, Holme makes it from seven to fourteen days; Williams, from six to sixteen days; Rilliet and Barthez, five to thirty, and even fifty days; and they are very good authority. Their statements are received as statements made on careful observation.

I should doubt very much whether it has an incubation of fifty days; at the same time I cannot limit possibilities in the matter.

When, then, it makes its appearance in different persons, at a variable period after exposure it has its stage of invasion, and this is pretty long for an eruptive disease; the longest of them all, three to four days. It is rarely ushered in with a chill, though cases are recorded in which a chill did occur as the first symptom. There is commonly, before anything very marked is observed, an indefinite feeling of not being well; *malaise*, as the French call it. And then comes a little febrile action, which increases day by day, and with that febrile action a redness of the eyes, and a little watery condition of them. The tears are secreted, and then there is the extension of the inflammation that was at first confined to the membrane of the eyes. On the outer membrane of the

eyes it extends into the nose and into the fauces, and so down gradually into the breathing tubes. You have, in a word, a catarrh, and the catarrh, when it is fairly formed, is attended by a peculiar cough in most of these children. The French have called it the "rire" cough, a harsh, coarse cough. The eyes run a good deal, the nose is a little hasty in that same business. There is some headache, the temperature is elevated moderately, and this condition continues for a period of from three to four days. The invasion of small-pox is two days, the invasion of scarlet fever from six or seven hours to twenty-four, the invasion of measles three to four days. The child is not very sick during this period of invasion, as a rule, though, as I told you, there is considerable fever, the temperature rising to 102°, or it may be to 103°.

Then comes the eruption. The eruption appears upon the upper part of the body first, and gradually descends to the lower part, just as scarlet fever does in the majority of cases, and yet there are exceptions. Measles may break out all over the body, or it may break out upon the back first, but the general rule is that it appears upon the neck and face first, and gradually descends. It takes it about two days to reach the feet in the greater number of instances.

The character of the eruption you may get an idea of from this portrait, and notice particularly the condition of the eyes. They are red, and so are the fauces and the bronchial tubes and the nasal passages—all reddened by this catarrhal inflammation. This eruption is sometimes called crescentic. I believe this is a fair representation of it, and you will hardly find a crescent in any of these spots of eruption. It is better described as being irregular in shape, varying somewhat in size, but rarely larger than a bean—sometimes in some degree linear and curved, but always varying. Every particular case of measles will give you a multiple form of eruption; it does not occupy, as the scarlet fever eruption does, all the skin. There will be healthy skin along between the several spots; red eyes, and a peculiar eruption of a dingy color, not bright red. The eruption lasts in any one spot about four days, and the whole eruption about six or seven days, it disappearing on the feet after four or five days of continuance, as it does upon the upper part of the body in the same period. You observe there is no difficulty in distinguishing the eruption of scarlet fever from the eruption of measles. They are both produced by numerous slightly elevated little points, the loops of the capillaries of the skin, but the irregular patches of measles and the darker hue of the eruption are sufficient to distinguish it from the continuous eruption of scarlet fever.

In a mild case, as in scarlet fever, the fever gradually diminishes after the eruption appears, but in a bad case the fever continues and the temperature rises. The bad cases are made by certain complications. As for example, there is the hemorrhagic form of measles, in the old time called black measles. The patches take on a dark, ecchymotic color—not so marked as ecchymosis, but still approaching it. In this case, as in the hemorrhagic cases of scarlet fever, the danger becomes very great, and the chances of recovery of course are diminished. In certain other instances there is a tendency to gangrene, particularly about the mouth; and in the female, the vagina, and sometimes about the anus. And this gangrene comes to be a very grave matter. It is exceptional, fortunately.

Then, again, you have a form of measles that resembles, in its general symptoms, that form of scarlet fever I described to you under the name of scarlatina maligna. The child appears to be overwhelmed by the poison that produces the disease. The nervous system seems to give way. He becomes delirious and comatose, perhaps awakening occasionally from his coma, making a shriek, a hydrocephalic cry, though there is no hydrocephalus.

You observe then, that measles, though in a greater number of cases a very mild disease, can take on very grave symptoms.

When the period of desquamation occurs, there is a noticeable difference between the desquamative scales of scarlet fever and measles. They are branny in measles, and branny for the most part in scarlet fever, but the scales are larger in scarlet fever than in measles, as a rule. Sometimes in measles you have it in great quantities. I have scooped it up in teaspoonfuls from the sheet on which the patient lay. There is nothing of the glove-form of exfoliation in measles.

There is, as a sequela of measles, a very considerable amount of coma, as it is sometimes called—a bad catarrh; running at the nose; the eyes retain their redness frequently for a considerable time; the cough holds over, and may continue for some months. And persons have been known to pass into phthisis, tuberculous disease of the lungs, out of measles.

As to the treatment of measles, the mild cases hardly require any. The catnip-tea that the mother gives us as about as good as anything. And when you come to the severe complications you are baffled very much, because you can hardly find anything that will have much influence over it. If it is the hemorrhagic form, why, then, iron and the vegetable acids, together with the supporting effects of quinine and food, will probably do more for you than anything else, if you can save the case at all. If it is attended by gangrene, there is nothing that has as good a reputation as quinine, and you of course support the power of the patient by alcoholics as far as your judgment will require. In the malignant form I do not believe you will find any medicine do much good. If ergot has the control that it has the reputation of having over the capillary circulation, it may be possible that it may have some effect upon this form of disease. It has not been tried, so far as I know, and I do not know that it would be useful. Cold to the head, cold to the body as the temperature becomes more and more elevated, is certainly admissible and desirable, to reduce the temperature to a safe point at any rate; and in measles the temperature rises in the bad cases sometimes to 106° or 107°.

There are a few things more to be said regarding measles. I neglected to say to you that another name for it is morbilli. Among the symptoms is rather a curious one; an odor like that which comes from the nest of mice—a mouse-odor. In any case of pretty full eruption you will be likely to find it.

Among the sequelæ will be found, not unfrequently, indeed pretty commonly, a certain amount of nasal catarrh, and this may continue for some weeks after, and associated with that, very commonly, is a pulmonary catarrh. One of the features of the disease, and with its early development, is this catarrhal affection of the mucous membrane of the eyes, nose, and breathing-tubes, and this holds over in a considerable number of cases, and not unfrequently gives some anxiety, and the anxiety is in a few cases well founded, for this disease and typhoid fever are followed more frequently by phthisis than any of the other acute affections that I know—by a tubercular

phthisis. Still the vast majority of persons who have measles recover from it wholly.

This ophthalmia is sometimes the occasion of some trickery. I was, a great many years ago, in company with a gentleman from the south. His eyes were red and inflamed to a certain extent, and I saw at once that it was a peculiar relic of the measles. After dinner the entertainer's son asked me what that young gentlemen had better do for his eyes. He had been to an advertiser, and the advertiser had informed him that it would cost him $500 to be cured, and the friend asked me whether it was worth while to pay it. When I learned who it was that he had applied to, I told him certainly not, but to go to Dr. Delafield, the father of my colleague (who was then giving considerable attention to the eyes), and let him put him under the regular treatment. He had sent word to his father to forward to him the $500 as a fee that he had to pay to cure his eyes. Instead of it, however, at my advice, he went to Dr. Delafield. Dr. Delafield applied around the eyes some veratrum ointment, and in five, six, or ten days, he was all right, and the fee was $19. This advertiser had tricked him in this way. When he urged that $500 was a large sum to pay, the advertiser replied: "The medicine is so expensive. You get the medicine and I will treat you for very much less." He gave him, therefore, a prescription for an ounce of veratrum, which at that time cost about $500. He called on one druggist with the prescription. The druggist said: "I have not that amount, but I can procure it for you." "Well, what will it cost?" "Four hundred and seventy-five dollars."

He went to another, and what would it cost? He had not that quantity, but he could get it for him. What would it cost? Four hundred and eighty dollars. And, after trying three or four times, he went back to the advertiser and said he could not do any better, and the advertiser was getting ready to use a few grains of this ounce that he had prescribed.

Occasionally wry-neck follows measles. The muscles of the neck get stiff and contracted, and turn the head. That is rather a wearisome thing when it occurs. It occurs exceptionally, and frequently requires a good deal of patience on the part of the physician, and I cannot tell you of any particular prescription, or any method of treatment that is of special aid.

Anasarca not unfrequently follows scarlet fever. It is a very much less frequent sequela of measles, and yet it does from time to time occur, and acts in the same way, with the same symptoms, the same developments with reference to the tendency to convulsions, the tendency to the production of inflammatory action, particularly about the heart and pericardium, and will require the same treatment. But its unfrequent occurrence will give you a little satisfaction. That is, as you are coming to the end of a case you will not consider that, as a matter of course, this œdema or anasarca is to occur.

The Cinchona Cure for Intemperance, by Dr. Chas. W. Earle. The claims of cinchona rubra as a specific for the cure of drunkenness was loudly heralded in Chicago a short time ago. Dr. Earle finally made a careful examination of the subject, and concluded that the cinchona treatment made more drunkards in the past year than any one liquor saloon.

Original Communications.

THE CAUSE AND TREATMENT OF GENU VALGUM.

By CHARLES T. POORE, M.D.,

SURGEON TO SAINT MARY'S FREE HOSPITAL FOR CHILDREN, AND TO CHARITY HOSPITAL, NEW YORK.

Part I.

The treatment of the deformities at the knee-joint, known as genu valgum and genu varum, has, until the last few years, been unsatisfactory, their causes have not been clearly recognized, and cases have been reported as belonging to this class which evidently should not have been so placed. Patients with these deformities have been reported cured under one mode of treatment which has entirely failed when applied to others seemingly not more aggravated. Much of this uncertainty is due to a misapprehension as to their real cause, and placing cases of different pathological conditions under one head. The following paper is a contribution to the study of this subject, and is based on a careful examination of thirty-six cases seen within the past year. The subject naturally divides itself into two parts, namely, the cause and treatment of genu valgum.

Genu valgum may be defined as a deformity in which the long axis of the tibia, when the leg is fully extended on the femur, inclines outward from the median line, and forms, with the long axis of the femur, an angle with its apex directed inward, so that the malleoli cannot be made to touch. Genu varum is the reverse of the above.

There is always more or less of an angle, with its apex directed inward, formed on the outer side of the knee-joint by the femur and tibia. In some persons this is more marked than in others, being due to a greater slant inward, toward the median line, of the femur. This is more commonly found in females than in males, and is due to the greater breadth of the pelvis; but in these cases the internal malleoli can be made to touch when the limbs are placed together—a position they cannot assume in genu valgum. This condition is not a deformity, and should not be confounded with knock-knee.

If one examines a perfectly normal adult femur, it will be found that the internal condyle is about half an inch longer than the external, when the bone is held perpendicular; but when it slants, as it naturally does, the condyles are on the same plane. This must needs be, as the plane of the knee-joint is horizontal in adaptation to the erect position. Any lateral deviation of the tibia from the median line, the joint being healthy, must be due to changes taking place in the extra-articular tissue. Three theories have been advanced to explain the cause of genu valgum: namely, the ligamentous, the muscular, and the osseous. Those who advocate the first, attribute the deformity to relaxation of the internal and contraction of the external lateral ligament; those who adopt the second, consider that the malposition of the tibia is due to contraction of the biceps; those who hold to the osseous theory refer the deformity to inequality in the plane of the two condyles, or of the articular end of the tibia, while some attribute the deviation to a combination of the above theories. During the past year I have

examined carefully thirty-four cases of genu valgum and two of genu varum, with the following result:

In thirty-five cases the deformity showed itself before the fifth, and in one not until the thirteenth year. In twenty-five cases of genu valgum the internal condyle of the femur was on a lower plane than the external, and in two cases of genu varum the external condyle was on a lower plane than the internal. In one case the internal condyle seemed of normal length, while the external condyle was much smaller than that of the other limb which was not deformed. In four the internal condyle of the femur was on a lower plane than the external, and the *inner head* of the *tibia* was on a *higher* plane than the external head. In one case the internal condyle was on a lower plane than the external, the head of the tibia being normal, while on the other limb the inner head of the tibia was enlarged while the femoral condyles were normal. In two cases the femoral condyles were perfectly normal, but the inner head of the tibia was greatly hypertrophied. In twenty-eight cases the deformity affected both limbs; it was confined to the right in one, and to the left in four cases. In four cases the femur was curved, in one outward, in three outward and forward in its middle and lower third. In four the tibia was curved forward, and in two outward. I have seen two cases in which there was genu valgum of one limb and genu varum of the other, but I have no notes of these cases. In one case the epiphyseal line of the femur seemed tender on pressure. In some cases the ligaments about the knee-joint were very much relaxed, while in others they were quite firm, and considerable force had to be used to cause any yielding. I have seen two cases, one of genu valgum, the other of varum associated with excurvation of the tibia (bow-legs).

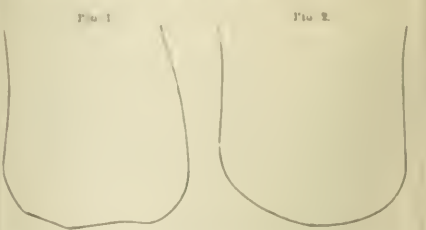
In none of these cases was there any disease of the joint, nor was there any contraction of the muscles about the knee-joint, nor any flexion of the leg on the thigh, when the patient was placed on his back.

In all these cases, except one, the deformity disappeared on flexion of the leg on the thigh.

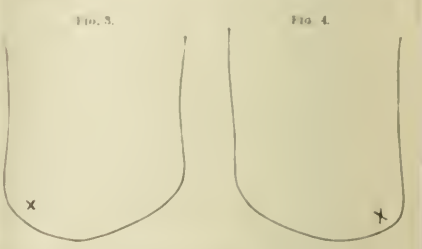
From the above statement it is evident that the malposition of the tibia was in all cases due to a change in the relations of the articular ends of the femur or tibia, or of both.

In twenty-five cases the deformity is said to have come on after the patients began to walk. Two at the time of first walking, and six before that period. These cases may be divided into two classes, namely: I. The infantile—those occurring before the fifth year. II. The adolescent—those occurring after the tenth year. Genu valgum is rarely, if ever, congenital.

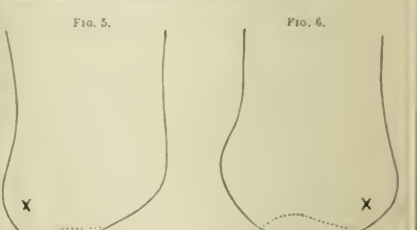
I. *Infantile.*—In thirty-one cases the children showed marked signs of a rachitic condition of the bones. There are but three ways in which one condyle can assume a lower plane than the other, namely, first, by incurvation of the inferior third of the shaft of the femur. That this is undoubtedly the sole cause in some cases, has been demonstrated at post-mortem examinations by Guéniot, Saurel, Barbier, and others. In some of the children I have seen this curvature of the femur at its lower third well marked, and evidently contributed to, if it did not entirely cause the malposition of the tibia, while in other cases it entirely failed to account for the deformity. Thus, in a woman thirty-six years of age, who had had a marked genu *varum* from infancy, there was a curvature of the lower third of the femur convexity *inward*. Secondly, there are a number of cases in which there is no appreciable bending of the shaft of the femur; yet the internal condyle is depressed even in children who have never walked. Thus, in a child two years of age who had never stood upon her feet, and in whom there existed a marked genu valgum, the internal condyles were much depressed, as shown by the following tracings:



Figures 1 and 2 exhibit the tracings of the articular end of the femur of two children free from any deformity.



Figures 3 and 4, from a child with double knock-knee, the x indicates the internal condyle.



Figures 5 and 6 are from a child who exhibited a marked knock-knee on the left side; none on the right. She was four years old, and had it from infancy. The dotted lines indicate the position of the patella.

The tracings were taken over the middle of the articulating surface, parallel with the long axis of the femur. The same thing has been demonstrated at post-mortem examinations (Guéniot). In the rickety skeleton it has been found that the external condyle was flattened and thickened, while the internal was increased in a vertical direction, or remained normal. There may also be a true hypertrophy of

the internal condyle in which it is longer and narrower than normal (Lannelongue). In the case mentioned above of genu varum the external condyle extended out as a long narrow outgrowth in a direction downward and outward, and was evidently the cause of the deformity.

The inner head of the tibia may be changed, occupying a plane higher than its outer head. I have seen two cases in which the deformity was due to this alone. In one case it occurred in a child fourteen months old, who had *never walked*. There was no bend of the femur, or tibia, the femoral condyles were in normal relation. The inner head of the tibia was three-eighths of an inch higher than its external. The inner portion of the articulating surface of the tibia seemed raised, as it were in a mass, and not gradually sloping to the plane of the outer head.

In four cases the deformity was due to the above changes taking place in the articular ends of both bones. Sometimes the changes in the shape of the bones about the knee-joint are more complicated—the tibia twisted so that its crest looked almost directly inward. In the examination of an adult skeleton (by Berger), the articular ends of the femur were normal, but the tibia was twisted inward from the middle of its diaphysis upward. The articular surface of the tibia was not horizontal, but inclined from without inward and upward, so that the styloid process of the fibula formed a part of the articulating surface of the knee-joint. I have seen one case where the tibia was much deformed, being twisted outward, and the articular ends both of the femur and tibia were greatly changed. Other changes have been found in the epiphyses of the femur in rachitic subjects. Thus, they may be twisted to one side on the diaphysis (Senator, Humphrys), they may be flattened and bulged out in all directions, etc.

The primary causes of these changes is evidently a rickety condition of the bones. The secondary or immediate, in some cases, is not so apparent. Mr. Barwell holds the opinion that the deformity of knock-knee is not due alone to change in the lower end of the femur, but that in all cases the tibia takes part in its production. Post-mortem examinations do not seem to warrant so sweeping a statement, although, in some cases, the articular ends of both bones are certainly involved. Relaxation of the ligaments of the knee-joint, or contraction on the one and relaxation on the other side, have been often assigned as the real cause of knock-knee, and that all changes in the bones are secondary. Billroth holds the latter opinion. Early in my study of these cases it became evident that the state of the ligaments was not the same. In many cases lateral motion in both directions was free. The tibia could be brought into its normal position, or even be carried beyond it, without the use of any force. In other cases there was no lateral motion either inward or outward, and no change could be made in the lateral position of the tibia without the use of considerable force. Active contraction of a ligament placed about a joint to limit motion or guard a position, is an impossibility. That they are shortened sometimes is a fact, but it is a secondary and not primary condition—not a cause, but an effect. In regard to contraction of the biceps as the cause of genu valgum, I have never seen it in this deformity, and the result of tenotomy in these cases does not seem to have been followed by success. Langenbeck, who formerly advocated this operation, has abandoned it as useless. There are cases reported in the medical journals where tenotomy has been rapidly followed by a cure; thus, Kelly, in the *Med. Press and Circular*, reports some cases cured by tenotomy and apparatus. What was the true pathological condition is not stated. Lately, Mr. Brodhurst (*Brit. Med. Journal*, June 14, 1879) exhibited, at the Clinical Society of London, a marked case of knock-knee in a patient of seventeen years in whom it has existed since childhood, and on whom he had done a tenotomy of the biceps and the external lateral ligaments, and then forcibly straightened and applied a splint with a cog-wheel, so as to gradually bring the tibia into its natural position. At the time of exhibition, four months had elapsed since the operation; the knee-joint was very lax, and the patient was still compelled to wear the splint. Mr. Brodhurst stated that the internal condyle was *not* elongated. Macewen (*Brit. Med. Journal*, Oct., 1879, p. 607) states that "in over one hundred cases in every case the articular surface of the internal condyle has been found at an abnormally lower level than the external." Parker, Barwell, Jones, and other English surgeons have expressed similar views.

A lax condition of the ligaments about the knee-joint may, in rickety children, by changing the direction of support, cause a bend of the lower end of the femur inward, and thus depress the internal and raise the external condyle. Undue mobility at the ankle-joint and talipes valgum will act in the same way, but the existence of a weak ankle, or a talipes valgum with genu valgum, should not always be accepted as a proof that it is an exciting cause. These deformities are often secondary to a knock-knee. In fact, it is seldom that we see a case of genu valgum in a rickety subject who has walked that is not accompanied with flat-foot. In children who have never walked this latter deformity is very frequently wanting.

That the deformity is not always due to too early use of the lower limbs in walking and standing is evident from the fact that genu valgum is found in a marked degree in children who have never used their limbs, and it has appeared before the period of walking. The case mentioned above is an illustration of this fact. There are some cases in which there is no bending of the femur or tilting of the epiphysis, but where there exists a real lengthening of the internal condyle, that must be attributed to true growth. The increase in the length of the internal head of the tibia mentioned above seems to point to this explanation.

Inequality in the length of the lower extremities has been mentioned as a cause. This condition, associated with weakened and lax ligaments, might aid in the production of the deformity in rickety subjects. I have seen one child whose left limb was three-eighths of an inch longer than the right, and in whom there existed a genu valgum of that limb, but none on the right side.

There is a deformity at the knee-joint that has been mistaken for knock-knee, namely, a contraction of the adductors and of the tendo Achillis, with some flexion of the leg on the thigh. The feet are turned inward. Any one can imitate this deformity. This is not genu valgum, and should not be so classed. May not some of the cases of rapid cure of knock-knee belong to this category?

II. *Adolescence.*—In a number of cases knock-knee does not show itself until after the tenth or twelfth year. When all danger from rickets has passed, a period corresponding to the time when the bones are rapidly lengthening, and active nutritive changes are

going on about the epiphysis. This period varies in different individuals, but may be said to extend from the tenth to the twentieth years. These patients have never been affected with rickets, as a rule, the development of the deformity is rapid. I have seen but one case belonging to this class. It occurred in a girl fourteen years of age. She had always been weak, but she was of fair size. It began to show itself eight months before I saw her, and then existed to a marked degree in both lower extremities. There was no abnormal bending of the femur or tibia. No enlargement of the epiphysis at the ankle or wrist joint. The internal condyles were enlarged. Both in England and on the Continent cases belonging to this class are often met, and various theories have been advanced as to their cause. According to the statistics of Mikutiez, bakers, factory-workers, locksmiths, and waiters, are most prone to this form of knock-knee. The statistics of English surgeons, as far as a careful reading of their cases goes, do not corroborate the above statement, although the vast majority of cases occurred among the laboring classes. In many of the reported cases no mention is made of the previous history of the patient, or the assigned cause. According to De Santi, the deformity is more common among boys than girls. The latter author reports a case in which the deformity came on at the age of ten, after an attack of articular rheumatism. Duval makes a similar statement. Some German surgeons have reported it common among bakers, and Wagner states that "this arises from want of resistance exercised from the corresponding portion of the tibia, standing for hours at a time with bent knees," but he does not state why the internal condyle alone should be thus hypertrophied, for both are placed exactly in the same condition, pressure being taken off from both when the leg is flexed. This elongation of both condyles is found in the persistent and long-standing flexion of the leg on the thigh from disease, and is one of the causes, if not the only one, of a failure to bring the tibia into its normal relations with the femoral condyles.

Some surgeons of the French school have advanced the theory that this deformity we are considering, occurring in children over ten years of age, is due to an epiphysitis situated over the internal condyle or below the inner head of the tibia, and refer to cases in which marked tenderness over the epiphyseal cartilage had been found (Vernenil).

In many cases the development of knock-knee had followed ill-health or a severe illness, as typhoid fever, the deformity coming on during convalescence.

Recently Mikutiez has made a careful examination of sections of the femur, taken from those who have had knock knee. He found that the deformity in genu valgum is just above the epiphyseal line; that in the cases he examined the epiphyses were not materially affected, and that the deviation was in the lower part of the shaft of the femur alone. In regard to the tibia, it was demonstrated that the obliquity affected only the upper part of the diaphysis and was caused by an uneven growth of the diaphysal junction. From an examination of the accompanying plate, the deposit would seem to occupy the space between the diaphysis and the epiphysis—namely, the cartilage.

This is certainly at variance with the result of the post-mortem examination of other surgeons.

Trippier, Vernenil, Lannelongue, Guéniot, and others have found a real lengthening of the internal condyle in a longitudinal direction and a narrowing in an antero-posterior direction, and not a simple depression of the condyle from a thickening of the cartilage above it.

Genu varum has been caused by an (acute) atrophy of the internal condyle. I know of but one case, and that is reported by Mr. Howse, of Guy's Hospital, who, in 1875, excised the joint in a girl fourteen years old for a genu varum in right limb, coming on after an attack of whooping-cough two years previous. The internal condyle was found to be greatly atrophied. The child, previous to her tenth year, had had straight limbs. She was a delicate, strumous-looking child.

Does true knock knee ever occur without changes in the articular ends of the bones? From my personal observation I should certainly answer this question in the negative. Nor have I ever read of a case where there has been absolute evidence of the absence of inequality in the plane of the condyles or heads of the tibia. Yet from the record of cases reported in medical journals, I must confess, if they were cases of true knock knee, there could not have existed any change in the articular ends of the bones, for it would have been impossible to rectify the deformity in the short time that is said to have been consumed in their treatment.

There are at least two other causes of genu varum and valgum—namely, disease of the bone near the articular end of the femur or tibia, and arthritis in those somewhat advanced in years. As these are strictly inflammatory in their nature, their consideration is omitted from this paper.

Conclusions.—Genu valgum and varum, as a rule, appear before the twentieth year.

The deviation of the tibia is due to changes taking place in the articular ends of the femur, or tibia, or of both.

The anatomical lesion in genu valgum is:

1. A depression of the internal condyle of the femur, due to a curvature with its convexity inward of the inferior third of the shaft of the femur.

2. To a flattening or atrophy of the *external condyle*.

3. To a true hypertrophy of the internal condyle.

4. To a hypertrophy of the inner head of the tibia, or a flattening of its external head.

5. To the above changes taking place in both the femur and tibia.

ON SOME IMPORTANT ADVANTAGES TO BE SECURED BY OBLIQUE SECTION OF THE SKIN IN SURGICAL OPERATIONS.

By JOHN H. PACKARD, M.D.,

OF PHILADELPHIA.

Read before the New York Academy of Medicine, May 6, 1880.

MR. PRESIDENT AND GENTLEMEN:—In the great majority of the cutting operations of surgery, it is an object to obtain as early and as effectual closure of the wounds made as possible. The exceptions are those which are undertaken for the purpose of establishing artificial openings, as for example tracheotomy, colotomy, gastrotomy, etc. And in ligation of arteries in their continuity, the presence of the ligature must of course prevent the closure of the track in which it lies. Yet in almost all even of these cases, the wound in the skin must be of such extent that a large portion of it may be healed without interfering with the result aimed at; while not only the comfort but the well-being of the patient is promoted by the

early exclusion of the atmosphere from the deeper tissues.

Another advantage is gained by the avoidance of unnecessary scarring. There are many cases of excision of tumors about the face, neck, or hands, in which the persistence of unsightly marks would give rise to a degree of mortification to the bearers of them, which it is not beneath the dignity of surgical science to endeavor to prevent. And I think it may be asserted that whatever adds to the precision of our procedures, or to the elegance and neatness of our results, is worthy of a place among the resources of our art.

Unless exception is taken to the correctness of these premises, an apology will hardly be needed for the suggestions to which your attention is now asked.

About six years ago, my attention was accidentally called to the fact that after oblique division of the skin, healing took place readily, and the resulting scar was small as compared with that usually left by vertical section. I was summoned to a woman who, while carrying a glass dish, had fallen and sustained a very severe wound of the hand from a sharp fragment of the glass. This wound was on the back of the hand, and extended from the wrist to the knuckle of the ring-finger. By the peculiar position of the edge of the fragment, the skin had been cleanly divided in an extremely oblique direction. Healing took place promptly, and to my surprise and the patient's gratification, the cicatrix was very much smaller than might have been expected after an injury so formidable in appearance as this had been.

It occurred to me to imitate this accident in surgical procedures, with the view simply of lessening the ensuing disfigurement—nor was I disappointed. On one occasion, having removed an old bursal tumor from over the patella, I was unable to find the line of junction between the edges of the section of the skin.

Now the mere lessening of scars has more than a cosmetic value. Every one knows how apt they are to be for a long time the seat of tenderness, sometimes exquisite, and how sensitive they often are to cold, as well as to barometric changes. By reducing the exposed portion of cicatrix, we do much to obviate these inconveniences, which are especially annoying to the working classes, among whom the accidents requiring operation are by far the most frequently met with.

Another danger to which scars are very liable is that of the development of keloid tumors; and the closer the union, the less of what a few years ago was called by microscopists *inodular tissue*, the less will be the probability of this very troublesome and intractable disease.

Quite recently it has occurred to me to develop another and I think much greater advantage of the oblique section of the skin, namely, the avoidance of suppuration, and the obtaining of very prompt and firm union between the cut surfaces. The rationale of this advantage can be easily seen. We have a close apposition of very wide surfaces, with exclusion of the air from the cavity of the wound, by means of a strictly valvular arrangement—the apposition of the edges being moreover favored by atmospheric pressure.

An application of the same principle in the arts affords an excellent illustration of the idea I am trying to urge.

It is often necessary to make belting, for the use of machinists, of a length much greater than could possibly be got from a single strip of hide. Hence several pieces have to be put together, and this joining or splicing must be done so as to be as strong as possible. For this purpose the ends of the pieces are bevelled off, or, as the technical phrase is, are *scarfed*. Sometimes they are said to be chamfered, a term borrowed from architecture, and usually corrupted into *chamfered*.

These scarfed edges being then applied to one another, and fastened either by gluing or by rivets, afford at the same time a very strong connection, and one which involves no thickening of the belt, which would interfere with its running. It is indeed often difficult to detect the exact line of junction.

The scarfing is done by means of a machine, with very great accuracy. I exhibit samples of it, and they will show the principle better than any description could.

Sometimes the scarf or bevel is made very long, and then of course it approaches much more nearly to parallelism with the surfaces of the leather. I measured the junction between two pieces of a belt in use, a few days since, and found it twenty-two inches.

Let me now briefly state a few typical cases in which I think I may claim that this procedure has been the direct means of effecting the best possible results.

A woman, æt. 52, came under my care with a mammary tumor requiring excision. The skin was very slightly involved. By means of two bevelled incisions I removed a mass equal in bulk to that of my two fists—going well into the healthy areolar and adipose tissue around the gland and tumor. A number of vessels which required ligation were secured with carbolized catgut, the ends of which were cut off short. The oozing of blood was thoroughly controlled by constant sponging with hot water, and the surface of the cavity, at the conclusion of the operation, was perfectly dry and clean. The wound was closed with three points of the hare-lip suture, and adhesive strips. Carbolized cerate was applied as a dressing, and gentle, equable pressure made with a wad of raw cotton.

On the third day the pins were removed. On the fifth the wound was found to be solidly united from one end to the other, there not having been a fluid drachm of pus formed.

Another case was that of amputation of the forefinger at the metacarpo-phalangeal joint, for injury by the thrust of a needle, causing cellulitis and wasting, with painful atrophy of the soft parts. The incisions were so made as to bring the cicatrix on the upper part of the stump, the outer flap being bevelled from within outward, the inner from without inward. Here there was some subsequent pain, and a dressing of hot laudanum was applied for about twenty-four hours. A perfectly dry healing ensued, with an absolutely linear cicatrix. No dressing whatever was used after the third day, a strip of dry lint only being put on as a protection.

Another case was one of strangulated inguinal hernia of the right side, operated on April 19th. The incision was made by carrying the knife in very obliquely, and dividing the skin in that manner for the requisite distance. The hernia was reduced without opening the sac. One vessel required ligation, which was done with carbolized catgut. Four or five hare-lip pins were employed for the closure of the wound, and one silver-wire suture, fastened with lead plates at either end, through the deeper tissues. A superficial silver-wire suture was also

used at the lower end of the wound. All these sutures were removed on the third day. No dressing was used but carbolized cerate, with a thin sheet of raw cotton over the whole of the region involved. The healing, although not absolutely dry, was very nearly so; there was never more than the $\frac{1}{4}$ of pus on the lint taken off. The cicatrix is a mere hair-line in appearance, and there is no tenderness, even on firm pressure.

No argument is necessary to show the advantage, in such a case as this, of a firm and deep union of the edges of the wound, with as small an amount as possible of cicatricial tissue to be pressed upon by the truss, which prudence will oblige this patient to wear for a time.

These cases have been selected as typical of the various classes of operations, and will answer as well as a much longer series in illustration of what I think is the value of this method.

Bevelling the edges of wounds made in rhinoplastic operations has been practised by many surgeons, notably by the elder Pancoast, of Philadelphia, whose "tongue and groove" suture was a marked element of the brilliant success of some of his procedures of this kind. It has not, however, been generalized in the practice of ordinary operative surgery, as in my humble opinion it may be to great advantage.

There are cases in which it is desirable to employ drainage, either by means of a tube of silver, rubber, or decalcified bone, by carbolized silk or by horse-hair. I am well aware that the need and advisability of this is doubted by many surgeons, and am ready to admit that drainage has been employed by some in a wholesale and routine manner, in every case, with perhaps injury to the patients, or at least to some of them. But when it is thought proper to establish an outlet, this may be done perfectly well with oblique section of the skin. Indeed, if desired, a sufficient portion of the incision may be made in the ordinary vertical method, at a suitable point, and the remainder may be made obliquely, so as to promote its healing.

I have not yet employed this oblique method of incision in any large amputation, as I have been experimenting with it in order to make sure of my ground; but should confidently look for like advantages in such operations as in those above mentioned.

It is a matter of much importance that the scalpel or bistoury used should be very sharp, in order to make the cuts with the utmost accuracy. The plane of incision should be as much inclined as possible. Of course the apposition of the cut surfaces should be most carefully and exactly effected, and where a cavity is left, as by the removal of a tumor, gentle and equable pressure should be so made as to close the tissues in and fill it up. Carbolized cerate forms an excellent immediate dressing, with or without laudanum, alcohol, dilute tincture of iodine, or other customary applications. My own preference is for the laudanum, with a wrapping of raw cotton, generally covered with waxed or oiled paper.

May I with much diffidence venture to hope that the modification which I have had the honor to urge upon your attention may be found really to be a contribution to that antiseptic surgery at which we must all aim?

Bills to Establish Marine Hospitals at New Orleans and Baltimore have been reported to the House of Representatives.

CONVERGENT SQUINT—CAUSES, RESULTS, AND TREATMENT.

By C. A. BUCKLIN, M.D.,

SURGEON TO NEW YORK EYE AND EAR INFIRMARY; LATE HOUSE SURGEON TO METROPOLITAN OPHTHALMIC HOSPITAL

In ninety per cent. of all cases of convergent squint, the eyes deviate by active muscular exertions, which are made for the purpose of obtaining distinct vision. The eye may deviate in consequence of a paralysis of one of the recti muscles. In another case it is drawn over by inflammatory contraction of one of these muscles. Exceptional cases are found where the eye, having lost its vision, and, therefore, having no incentive to direct its visual axis, wanders in the direction of an abnormally powerful muscle. Seventy-seven per cent. of all cases of convergent squint are far-sighted (Donders). It is, therefore, fair to conclude that there is a connection between far-sightedness and squint. This connection has been the darkest chapter in ophthalmology. The difficulties which the prevailing school of ophthalmologists meet, are contained in the following questions:

Why is it that seventy-seven per cent. of all convergent squinters are *far-sighted*, and not *one* per cent. of far-sighted individuals squint?

Why do many who are *not* far-sighted squint?

Let us explain the nature of *far-sightedness* (hyperopia), and then we will examine the prevailing reasons which are given why some far-sighted people squint, and also the reasons why they do not squint.

A far-sighted eye has so short an anterior posterior diameter that the inverted image formed by the crystalline lens falls behind the retina. A far-sighted eye, when at rest, only acquires as acute vision for distant objects as a normal eye by increasing the thickness of its lens by active exertion of its ciliary muscle.

It is a mistake to suppose that, when the term far-sighted is used, an eye is designated that is especially adapted for distant vision. The term is applied to an eye which, when at rest, is not adjusted for any distance either on the earth or in the heavens, and only becomes adjusted by active muscular exertion. The normal eye, on the contrary, is adjusted when at rest for all distances beyond 20'. It is, therefore, readily understood that when a near object is observed from which divergent rays of light are received, the far-sighted eye must increase the thickness of its lens to a much greater extent than the normal eye (accommodation), in order to bring the inverted image far enough forward to have it fall upon the retina.

In addition to accommodating to receive distinct images of the object, we must converge our eyes in order to bring both of them to bear on the object. The stronger we *converge* the stronger we can accommodate; there is, therefore, a connection between them. The far-sighted person may find, when he has fixed both eyes upon an object 12" distant, he cannot accommodate for this distance till he has converged his eyes at a point 6" distant.

But, when converged for the latter distance, although focused for the former distance (12"), his eyes are not directed at the object he wishes to observe, consequently he is unpleasantly situated.

Should he by any accident find out that by converging one eye for 6" and leaving the other fixed upon the object he wishes to observe, the necessary amount of accommodation will take place in that eye as well as in the converging eye, would he not be

foolish *not* to resort to this "trick" (Mauthner) when by so doing he sees with perfect distinctness, or would he, out of the desire to see the object with *both eyes*, prefer not to see it distinctly. I think he would see it distinctly if he knew how.

Prof. Donder's work on "Accommodation and Refraction of the Eye" is the authority most frequently consulted by my friends. I therefore will give what he considers factors, which will *prevent* a far-sighted individual from making use of this ingenious trick for obtaining distinct vision, and those factors which will favor his learning to squint.

I confess that, after long and careful consideration, I have not been able to convince myself that any of the factors which he gives in any way determine whether the far-sighted individual shall squint or not.

First.—"The necessity of seeing an object singly with both eyes is deeply felt. The direction of the visual lines is thereby forcibly determined. Of this I convinced myself years ago by observing the rapidity with which double images were made to vanish when a prism of glass was placed before my eyes, and also again when it was removed. This abhorrence of double images, or rather instinctive adherence to binocular vision, prevents most hyperopes from strabismus. They sacrifice the advantage of seeing accurately rather than seeing double. In this we find the reason why not nearly all hyperopes squint."

He would have made a more striking remark if he had said the necessity of *seeing* the object is deeply felt in every individual whose nearest point of distinct vision at which he can direct both eyes is farther away than his work. He thinks it follows because *his* eyes, which when directed at a point 12″ distant, can see distinctly, do not find it agreeable to look through prisms and see double that one who cannot see distinctly at 12″ will not learn to disregard one object, when it is the *only* way by which they can ever possibly see an object distinctly at that distance.

Because he has no incentive or advantage from allowing retinal images to fall on different or not corresponding parts of his retinæ, but only disadvantages, he concludes that the squinter meets with the same experience. Ask every squinter you see, who squints for the sake of obtaining distinct vision, if he sees or ever saw double. He who cannot squint without seeing double don't know how to squint, and will not squint. To show that it is the abhorrence of double vision which prevents hyperopes from squinting, he says, if you cover one eye with the hand (thus removing the possibility of double vision) the covered eye in "*most*" hyperopes will deviate inward. This is reasonable, but not true of "*most*" hyperopes.

I will give a most favorable case for this experiment. Miss G—— has hyperopia in one eye, $\frac{1}{10}$, she cannot accommodate with it sufficiently to see small and near objects distinctly. The other eye is normal. She knows how to squint in so far that, if you say squint, she will deviate the axis of one eye inward, but she sees double when she squints. If we deprive one eye of its vision by covering it with the hand we have all the conditions removed which present squint, and all the conditions present which favor squint. The theory of poor vision in one eye, be it due to "*cortical cataract*," "*corneal spots*," or *refractive conditions*, falls to the ground. The necessary amount of hyperopia is present in the other eye to make squint necessary for distinct vision, still the covered eye does not deviate. This proves that for a person to squint, there is something more necessary than that all the conditions which prevent it are *absent*, and all the conditions which favor it are *present*.

I was formerly very enthusiastic in trying to trace the relations between squint and corneal spots, and also tried to convince myself and friends of the absolute necessity of the visual image being less distinct in one eye before the other eye could sufficiently lose respect for the visual impressions of its fellow to allow it to wander toward the nose. A case of squint, where one eye was normal and the other had a corneal spot and squinted, was regarded as a great triumph in favor of our "solid science." At last I found a case of the purest kind of squint—there was no corneal spot; there was no difference in the refraction of the eyes; the acuteness of vision was alike in both eyes. Among the many "why's and wherefore's" I had always been able to find one that would fit the case in hand, but this case certainly is not explained by any one which Donders gives. We had formerly found conditions existing in squint which we had supposed caused squint, but to explain the above case some other theory must be advanced.

We must therefore accept Mauthner's explanation. Squint is a trick which is frequently learned by those whose near point of binocular vision is beyond their working distance, let the cause be what it may, provided increasing the power of the ciliary muscle of either eye can produce a distinct retinal image. If any child is in the above "fix" and does not squint it is simply because he don't know how to bring it about; if once taught he never will forget it. He may imitate his playfellow and learn. It may strike him while trying to look at a spot on his nose or over the rail of a steamer. It often takes place during an acute attack of sickness which has slightly reduced the accommodation of the hyperope, and made him incompetent to perform his abnormally large task.

People always believe that whatever the child was occupied with at the time he learned how to squint, is the cause of the squint. They think their children have caught it from mocking some other child, or the reflection from the water caused it. None of these causes would have been sufficient had the child been able to see distinctly without squinting. Let us now see how squinting really assists to acute vision.

A person whose nearest binocular point is 24″ distant wishes to observe a small object only 12′ distant, but when he converges both eyes at this point, he is not accommodated for this distance, and it is only when he is converged for 6″ that he can accommodate for 12″; he certainly is in an unpleasant predicament. He must either fix both eyes on the object 12″ distant, and content himself with indistinct retinal images, or he fixes one eye (always the best one, if there is any difference) upon the object, he then ignores the retinal image of the other eye as best he can, and converges it for a point 6″ distant. By this manœuvre he is enabled not only to bring about an unusual amount of accommodation in the deviating eye, but also in the fixing eye. The amount of accommodation that can be brought about in the fixing eye by a given deviation in the other, is as yet a factor which remains for future investigators to measure. There are a few other statements in Donder's work which I must be allowed incidentally to mention.

"He says the size of the angle which the visual line and the optical axis form, determines the amount of hyperopia necessary to produce squint. He believes the angle 1.07° greater by those who squint than

those who do not squint. Other investigators have been unable to substantiate this fact. Admitting it to be true, it is interesting to see how he reasons to his conclusion. When this angle is great, the visual line has an abnormal inclination inward, therefore a greater amount of divergence is required to bring the visual lines parallel.

"Now if, in looking at a distance, the requisite divergence of the axis of the cornea easily falls short, the convergence will likewise, under the influence of hyperopia in looking at near objects, be relatively too great."

The above is a piece of profound science which I have heard ambitious teachers of ophthalmology inflict upon those who very innocently have asked, "why do so few hyperopes squint?" He is overwhelmed by the answer, and wonders why others understand so easily what is to him so confused. Admitting that the above condition may exist, it is not plain to any one how a condition which makes the amount of convergence necessary to fix a near object so little less than normal, can in any way produce squint. Javal says a great theory has been constructed on this little angle, which is more respected the least it is understood.

Donders says again, squint is not found in high degree of hyperopia, because the difficulties to be overcome are so great that the advantage derived from squint is not sufficient to tempt him to try and squint. It is true when the above is the case he will not squint, but I find squint in all grades of hyperopia, and I can see no reason why it should not be so. A child has an accommodation of about $\frac{1}{4}$; suppose he has an hyperopia of $\frac{1}{4}$, if he does not have to squint to see distant objects, he certainly will have to do so to see near objects. If he can see distinctly by squinting, it don't make any difference what the degree of hyperopia is, he will do it if he know how. Finally he remarks that paresis of the accommodation by itself is as little liable to produce strabismus as is the diminution of the range of accommodation connected with the increase of years. This is partly true and partly untrue.

If the paresis is so complete that no advantage can be obtained by throwing the entire energy upon one ciliary muscle, he will not learn to squint, but it sometimes happens that he does derive advantage from so doing, in which case he is liable to learn to squint.

An old person has a hard lens, and it makes no difference how much contraction he brings about in his ciliary muscle, he cannot change the form of his lens sufficiently to be of advantage to him, consequently he never will think of learning such a useless art as squinting. He will rather hold a candle between his paper and eyes, and overcome the difficulty by making his pupils small, thus diminishing the circles of diffusion.

Any one will squint if they can learn how, provided they can see distinctly by squinting, and cannot see distinctly without. I have not been able to convince myself that they will learn any quicker with the vision of one eye reduced than they will with an equal amount of vision in each eye.

217 East Fiftieth Street.

(*To be continued.*)

Pleuro-pneumonia has appeared in one of the large stables at Stapleton, Staten Island. Twelve or fifteen animals have so far been affected. Six of these have been killed, and the rest quarantined.

GASTRIC ULCER.

By HERBERT W. LITTLE, M.D.,

As ulcers of the stomach, which give definite symptoms during life, are not of common occurrence, with the exception of perforating ulcers, of which the termination is fatal, it will be interesting, perhaps, to read the case given below. This is presented for the following reasons, viz: *first*, on account of the great obstinacy of the case; *second*, the controlling influence of ingluvin; *third*, the tolerance of rectal alimentation.

The obstinacy of the case will be perceptible further on.

As far as the beneficial effect of ingluvin in this instance went, it certainly was, apparently, very satisfactory; but, whether or not the ulcer was cicatrizing at the time it was administered, and the improvement was a mere coincidence with its administration, or whether or not the improvement was due directly to the effect of the remedy, is hard to say. In either case, improvement promptly followed the use of the remedy.

The patient was supported exclusively by rectal alimentation for three consecutive months, proving the tolerance and absorption of enemata, the rectum acting as a second stomach. This would seem to show the fallacy of Dr. Tully's statement that, inasmuch as there are no lacteals in the colon and in the rectum, the idea of introducing nourishment into the system by means of *enemata nutrientia* is a perfect chimera. It seems, as Bodenhamer says, that the nutritious elements are taken up by the absorbents, and conveyed by them to the *receptaculum chyli* or *reservoir of Pecquet*, and thus soon find their way into the economy, and produce their assimilative and nutritive effect. Bodenhamer, in his excellent treatise on rectal medication, further states that there are lacteals both in the colon and rectum, and that the late and lamented Prof. Horner, of Philadelphia, stated, from minute researches, that the office of the follicles of Lieberkühn is that of absorption, and not secretion. Therefore, absorption takes place principally through the lacteals and follicles of Lieberkühn. In my position as house physician at the Presbyterian Hospital, I have had opportunity to test the tolerance and absorptive powers of the rectum and colon to a considerable extent, both for food and for medicine, and have great confidence as regards their efficacy; and, moreover, am safe in saying that in a number of instances I have seen life saved by resorting to rectal-colonic alimentation.

The patient, a female, aged 36, unmarried, and a seamstress by occupation, came under my observation October 1, 1879, with what was supposed to be gastric ulcer. She stated that she had always been stout and healthy, with the exception of a general peritonitis which she had two years ago. Her weight when in health was about 160 lbs.

The present trouble began eight months ago with nausea and vomiting after eating; at times she vomited a little blood. The vomiting had increased so much that for the last two months it had been almost continuous, being excited by the ingestion of food. She knew of no cause for her ailment. She had been from the first under medical care, but had derived no benefit. Almost all the remedies in the materia medica employed for that purpose had been used to check her vomiting, but without avail —ipecac, opium, pepsin, bismuth, soda, oxalate of cerium, hydrocyanic acid, eucalyptus, carbolic acid,

calomel, salicylic acid, nitrate of silver, Carlsbad water, ice, etc. She was gradually getting worse, having lost twenty-five pounds since the inception of the trouble, and the vomiting still increasing.

When she came under observation she was emaciated and feeble; had not had her menses since July last; bowels constipated; vomited everything shortly after being ingested, not being able to retain either solid or fluid food, although coarse and solid food gave her more distress than fluid; threw up a little blood three or four times. Always felt relieved after emesis had taken place. Complained of tenderness, confined to the centre of the epigastric region, and a burning pain (coming on soon after eating) in the same location. At times she would complain of a dorsal pain or cardialgia. No tumor was felt through the abdominal walls. The diagnosis of gastric ulcer was founded on the following symptoms: great tenderness at a localized point in the epigastrium; a burning pain in the same location; vomiting of both solid and liquid food, and always experiencing relief after emesis. As the nausea and vomiting was more severe in an hour or so after eating, it seemed to point to the pyloric end of the stomach as the seat of the disease.

She was given a liquid diet consisting of milk with lime-water and beef-tea, occasionally chewing rare pieces of beef and swallowing the juice. To control the vomiting, powders of subnitrate of bismuth and morphia were administered. This plan of treatment was kept up for five days without any beneficial result, the milk being thrown off as well as the beef-tea. Various remedies were then tried, but still she vomited and retched until everything was thrown off her stomach—even bile, blood, and mucus being expelled. A whitish discharge which had been vomited occasionally was examined microscopically, and found to consist of squamous epithelium and blood-corpuscles, with mucus and extraneous matter. She was then put on enemata of milk, beef-tea, and defibrinated blood. Ice, soda, and subcarbonate of bismuth in twenty grain doses, with blistering over the stomach, were all employed to relieve the retching, but with no amelioration. In fact, all the symptoms were aggravated. The burning pain was getting more intense, the tenderness and vomiting increasing, and now insatiable thirst tormented her, but everything she took to relieve this only aggravated the emesis. As a last resort, ingluvin was employed, to be given three times a day. Within a week she felt better. The vomiting was greatly relieved, now occurring but twice a day, whereas formerly it was almost continuous. The burning, gnawing pain was gradually eased. Improvement rapidly progressed; in ten days the vomiting had entirely disappeared, the tenderness and burning diminishing. The enemata were now discontinued (having been used three months). The patient got out of bed, and thereafter ate three meals a day without any inconvenience. She began immediately to gain flesh, and her menses again appeared. Shortly after she went home in excellent condition, with the ulcer probably cicatrized.

As mentioned above, this case is interesting partly on account of the long-continued use of rectal injections, showing the value of them in prolonging and saving life. They are of service after operations on and in diseases of the tongue, pharynx, œsophagus, and stomach; after removal of cancer of the tongue, of tumors of the jaw, and in cases of diphtheria, tumors of the pharynx, stricture or obstruction in the œsophagus, tumors of the larynx, pressing upon the œsophagus, or in any disease interfering with deglutition; also in cancer or ulcer of the stomach, gastritis, and in marasmus of children. Of the latter, Dr. G. M. Smith, of this city, had a case, the subject of which was a little girl in a deplorable condition. She was supported entirely by rectal injections, until gradually she was restored to perfect health.

These injections may be used almost without limit, although there is a prejudice against them on the part of the patient. Dr. Austin Flint, in his "Practice of Medicine," mentions three cases which were supported by nutritious enemata. The first was sustained three weeks, the second one month, and the third and longest three months.

Reports of Hospitals.

BELLEVUE HOSPITAL, NEW YORK.

SERVICE OF DR. LEWIS A. SAYRE.

A CASE FOR DIAGNOSIS—OSTEITIS AND PERIOSTITIS MISTAKEN FOR DISEASE OF THE HIP-JOINT.

THE patient was a lad sixteen years of age, who had been thrown from a cart two years previously, and thus had received the injury from which he was still suffering. It had been supposed by a number of excellent surgeons that he had hip-disease, because many of the prominent signs of that affection were present; but a careful examination showed that, notwithstanding this fact, the diagnosis was erroneous. To all appearances, the patient was in the second stage of disease of the hip-joint when effusion has taken place. The affected limb (the left) was markedly flexed, abducted, and everted, and when the attempt was made to press it down upon the floor, so that the popliteal space would touch (the patient lying flat upon the back), the pelvis at once became tilted, and a distinct arch was made in the line of the lumbar vertebræ.

There were, however, several important points which showed that this disease could not be present here. In the first place, the general appearance of the lad was too much that of good health for the second stage of hip-disease, presenting a marked contrast to that of other patients who had arrived at this period in the affection. Again, the jamming of the head of the femur against the acetabulum with great force produced no pain whatever, and the patient was able to stand alone upon the affected limb without any inconvenience or suffering, which would have been utterly impossible with a diseased hip-joint. On the other hand, the use of extension gave him no relief, which would, of course, have been the case if he had had this. In addition, the thigh of the affected limb, instead of being smaller than the other, was actually half an inch larger in circumference, it being probable that a cold abscess was forming in this position.

The real condition which was determined to be present was osteitis and periostitis, which had resulted from the injury mentioned, and at the point where there was now the greatest tenderness (the pain on pressure being very marked here) the patient stated that the skin was much discolored immediately after the accident. This point was on the outer aspect of the thigh, about four inches distant from both the anterior inferior spinous process of the ilium and

the great toe-blister. Seguin's surface thermometer indicated a marked increase of temperature at this locality, as compared with that of the surrounding parts.

CLUB-FOOT.

A case of very bad club foot was shown which had been operated on two weeks previously by subcutaneous section of the *tendo Achillis*, and in which the most marked improvement had taken place. The rule of restoring the foot completely to its normal position at the time of operation, upon which Dr. Sayre always lays great stress, had been observed, and the result was very satisfactory. Immediately after the division of the tendon, the small external wound had been sealed up by adhesive plaster, in order to prevent the entrance of air, and it had now entirely healed up without any suppuration whatever. Instead of any degenerative changes taking place, there had been organization of the exudation poured out, and the development of new tissue; so that the gap (which was of considerable size) between the cut surfaces had already been filled up by this, and union in the tendo Achillis had actually taken place in two weeks. This was demonstrated by the fact that the patient was now able to draw up the heel voluntarily, even when some slight resistance was opposed to it.

A somewhat similar case was then shown, in which there had as yet been no operative interference, and attention was called to the blueness and coldness of the surface of the part, which is so common in club-foot, on account of the obstruction of the circulation in the part. In this instance it was found that the heel could be brought down until the foot was almost at right angles with the leg, and that while the *tendo Achillis* was thus upon the stretch no reflex spasm was produced by making pressure upon it with the finger. It was not necessary here, therefore, to divide the tendon, in accordance with the rule laid down by Dr. Sayre, that when a tendon or fascia is being stretched to its fullest extent, and pressing upon it at the same time with the finger or thumb produces no *reflex* contractions, it is not necessary to cut it, as the contraction can be overcome without this by the application of constant elastic tractile force. Here there was deformity of the front part of the foot, constituting what is known as

TALIPES PLANTARIS,

and since, when the plantar fascia was put upon the stretch, this additional point-pressure produced reflex contractions of the same, it was determined that it was necessary to divide the fascia. This was accordingly done subcutaneously, and as soon as the wound had been covered with adhesive plaster, the foot was at once brought into its normal position. On account of the feebleness of the circulation, cotton was put around the instep and ankles before the dressing was applied, in order to protect the parts from sloughing. A piece of thin board, cut to the required size and left square at the toes, having first been provided with a broad strip of moleskin adhesive plaster, one end of which was allowed to remain loose, so as to be applied to the anterior surface of the leg, was then bound to the foot by a roller-bandage, care being taken to leave the toes exposed, so that the activity of the circulation might be observed. The strip of adhesive plaster passing from the toes to the anterior surface of the leg was further held in position by the roller, and the foot was thus firmly secured at right angles to the leg. In addition, another strip of plaster, which almost encircled the front part of the foot, was carried from its external surface to that of the leg, and secured by a roller.

The next case seen was one of

VALGUS EQUINUS

in a very young child, the foot being inverted and the heel turned up, while the *varus* deformity was more prominent than the *equinus*. It had been operated on six months previously by some other surgeon, both the *tendo Achillis* and the plantar fascia having been divided, but the after-treatment, upon which success wholly depends in such cases, had not been properly carried out. On account of the former operation, it was impossible to say now whether the deformity had originally been of a paralytic or a spastic character. In cases where there has been no cutting, the paralytic is distinguished from the spastic by the fact that the foot can be restored to its normal position, while in the latter this is impossible. Attention was called to the great redundancy of integument on the outer portion of the foot, beneath and in front of the external malleolus, and it was recommended that constant frictions with spirits and water should be made over the part, so as to harden the skin and cause it to contract sufficiently to assist in keeping the foot in its proper position. Sometimes, it was stated, it was necessary to cut out a piece of skin and stitch the edges of the wound together, in order to secure this.

In many cases, when taken sufficiently early, a cure could be effected by means of a simple piece of adhesive plaster, though it was very important that it should be put on properly. One end of the strip should be applied to the upper surface of the foot and then passed around to the ball, great care being observed in doing this not to completely encircle the foot by leaving an open space between the attached end of the plaster and the portion passing up from the ball of the foot. The free end should next be carried up the leg as far as the knee, and the whole then secured by a roller-bandage. This dressing was applied in the present instance, and as the material used was the ordinary adhesive plaster, instead of Mau's moleskin (which is the best), a similar strip was put on outside the roller, lest the first should not be sufficiently strong to answer the purpose desired, when a second roller was applied outside of all. In very young infants it was advised that the foot and leg should be neatly wrapped with a soft flannel bandage before applying the adhesive plaster, on account of the danger of its chafing the delicate skin. Here an appropriate club-foot shoe was also ordered for the child.

ULCER OF THE LEG.

The patient was of advanced age, and ten years before he had fallen through a hatchway into a cellar, a number of stories below, and received the most serious injuries in several parts of the body, but from which he had recovered in a truly marvellous manner. Notwithstanding the fact that both the thigh and the patella had been badly fractured, he was able to walk eight or ten miles with comparative ease; but still the venous circulation of the limb had never been in such good condition since the accident as previously, and, in consequence, a chronic varicose ulcer of the leg had resulted. Although this affection is such a common one, Dr. Sayre thought there was very little of value taught in the books in regard to it. Yet the correct treatment was very simple,

and, if properly carried out, would almost invariably result in a cure; so that in cases which had been given up by most of the practitioners of the neighborhood a young surgeon could often make a reputation for himself by adopting this.

Such ulcers resulted from a varicose condition of the veins. The bursting of the latter was followed by erosion of the cutaneous surface, and a continual exudation. Thus the ulcer formed, and the edges became more and more indurated, while their boundaries gradually extended. Unless appropriate measures were taken, the trouble would last for many years or a whole lifetime; and hence the affection had come to be regarded as the opprobrium of surgery. In an instance mentioned by Dr. Sayre, the ulcer had lasted for more than thirty-two years.

The treatment in this case had been commenced four days before. At that time a number of parallel incisions through the *cutis vera* had been made over the affected part, and, in consequence of the salutary depletion thus accomplished, it was always noticed in such instances that the blue and unhealthy color of the surface, due to venous engorgement, was at once changed to a natural ruddy hue. When the congested vessels had been sufficiently relieved, the limb was strapped with adhesive plaster in the manner known as "basket-strapping," until the parts were all completely covered. This consists simply in the alternate application of two series of adhesive strips at right angles to each other. When this dressing is properly applied, the patient experiences no pain whatever afterward; but in the present instance it had, unfortunately, been neglected to have the foot at right angles to the leg at the time the dressing was made, which is a point of very considerable importance. In consequence of the plasters being put on when the foot was extended, a little chafing at the tendo Achillis had been produced, and more or less pain had resulted. When the ulcer has been dressed in this manner, the rule is to instruct the patient to return when the moisture exuding from the part had soaked through the plaster and the bandage covering it. When this had occurred, one would find on removing the dressing, instead of the thin, unhealthy secretion which ordinarily characterizes such ulcers, a thick and tenacious exudation covering the part. When this is found to be present it should be removed, with the exception of the portion directly over the sore, which should be allowed to remain, as it makes the best possible dressing for it. In the present case, if the mistake above noticed had not occurred, the leg could probably have been allowed to remain untouched for another week.

The dressing having now been removed, the marks of the straight incisions through the skin could still be perceived, although they had rapidly healed up, and the union of the divided tissues was complete. Already it was found that the sore was nearly well; an ulceration in the upper portion of the part being entirely cicatrized, while one lower down, which had previously been quite large, was now not more than the size of the nail of one's little finger. Over the *tendo Achillis* could be seen a little abrasion, which was due to the chafing produced, as above stated, in consequence of the plaster being strapped on while the foot was in a position of extension. The plaster dressing was then reapplied; the secretion having first been wiped off, with the exception of that directly over the sore, and care being taken that the foot was at right angles to the leg. The great secret in putting on the strips was stated to be drawing them so smoothly that there should be no creases or folds. The horizontal strips were to alternate with the perpendicular ones, and each was to overlap its predecessor by from one-half to one-third the width of the plaster. It did not matter where the ends of the strips went; each one being allowed to take the direction into which it naturally fell, in order that the dressing might be perfectly smooth.

One point of importance was, that no spot should be left uncovered.

In the permanent cure of such ulcers of the leg, the after-treatment was of much consequence, as that adopted for the purpose of healing up the lesion. This consisted simply in the patient's wearing for the rest of his natural life, a proper support for the part, so that the blood might be drawn away from the cutaneous veins to the deeper-seated vessels; and unless such a precaution were taken, the trouble was sure to return sooner or later.

Martin's rubber bandage afforded us a very excellent means for carrying out the indication; but the elastic stocking answered quite as well, while being less clumsy. The essential point was to properly support the circulation of the part. In the present instance a roller-bandage was applied outside the adhesive plaster, commencing at the ankle, so that the boot could be worn. The dressing was now perfectly comfortable to the patient, and its removal would probably not be necessary for ten days or a fortnight.

VARICOCELE.

The patient was a young man of twenty-two years of age, with a varicose enlargement of the veins on the left side of the scrotum; giving rise to a dull, aching pain and a sense of weight and fulness in the part, as well as considerable pain in the back. Dr. Sayre said that he had never met with a case of varicocele on the right side, and remarked that there was an anatomical reason for this uniformity of position, viz.: that the renal and scrotal veins on the left side were at right angles to each other (which was not the case on the right side), and hence there was a column of blood in this position which was very apt to produce engorgment of the spermatic veins.

While the operation by subcutaneous ligature of the veins was ordinarily quite successful and free from danger, occasional instances had been reported in which a fatal result had ensued, and hence Dr. Sayre preferred to operate by removing a portion of the scrotum, with the assistance of a curved clamp, which he had devised for the purpose. Accordingly, this procedure was adopted in the present case. Care having been taken that the testicle was well up in the scrotal sac, the lower and outer portion of the latter was included in the clamp, which was not not unlike the metallic mouth of a purse in shape and appearance. Before the removal of the redundant portion, the precaution was adopted of passing a number of stout pins through the scrotum along the outer border of the clamp, in order to prevent the testicle from being uncovered when the part was removed.

The first time that Dr. Sayre operated in this way, this accident occurred, owing to the unexpected contraction of the dartos muscle, and hence it should always be guarded against. The pins now having all been inserted, the portion of scrotal tissue outside the clamp and pins was cut smoothly off with the scissors, and then, while the pins were still in position, the edges were united by a continuous

[illegible] ture. This operation had always proved quite as effectual as the lancet ordinarily resorted to, and it had never been followed by any serious consequences.

[illegible] and the patient was discharged [illegible] operation.

REMARKABLE GUNSHOT WOUND OF THE HEAD.

A patient was shown, who while fighting in our army at the battle of the Wilderness, in 1862, was shot just behind the left ear with a rifle-ball. The missile, which was nearly two inches in length, had been extracted, and a portion of it was still in the man's possession. When an examination was made of the seat of injury, a circular orifice more than half an inch in diameter was seen back of the ear, and on looking into this, a canal was discovered extending through the entire thickness of the temporal bone; so that in a good light the pulsations of the *dura mater*, at its base could be as readily distinguished as those of the anterior fontanella in a young infant. Notwithstanding the gravity of the lesion, however, the hearing had remained unimpaired, and altogether the patient had made a most extraordinary escape.

Progress of Medical Science.

THE ANTIPYRETIC TREATMENT OF RELAPSING FEVER.—Dr. Riess, of Berlin, in a paper on a recent epidemic of relapsing fever in that city, states that he, like other observers, never saw any good results follow the use of large doses of quinine either during the attacks or before the relapse. The salicylate of soda, however, proved decidedly efficient as an antipyretic in a large number of cases. He gave it, as a rule, in doses of ninety grains, both during the first attack and the relapses, and found that, in the majority of the cases, the temperature fell almost to the normal point in from two to six hours. When the drug was administered shortly before the time the crisis was expected, it seemed to shorten the attack. In a few of the cases the drug had but little or no effect. In twenty-six cases the salicylate was administered methodically during the apyrexia, in the hope of preventing the relapses; these patients took ninety grains once or twice a day for from eight to fourteen days, beginning a day or two after the crisis of the first attack. In eight of these cases the relapse set in at the usual time, but it was neither very severe nor very prolonged. In four of the cases there was no relapse at all, while of fifty cases in which the salicylic treatment was not methodically employed only one escaped the relapse. In thirteen of the cases the relapse seemed to be delayed, shortened, and rendered less severe by the treatment; in these cases the duration of the relapse varied from twelve hours to two and a half days, the temperature rarely exceeded 102.8°, and instead of showing itself on the seventh or eighth day after the first crisis, the relapse set in in six cases on the ninth day, in two on the tenth, in three on the eleventh, in one on the twelfth, and finally in one on the twenty-first day. It was noticed that in some of these cases, about the time the relapse was expected, the patients suffered for some days from malaise, headache, and loss of appetite, with rapid and shallow breathing, but without any elevation of temperature. This was particularly noticeable in one of the four cases that entirely escaped the relapse, and also in the case in which the relapse appeared on the twenty-first day; in this case the second attack of fever lasted only one day. Finally, in one of the twenty-six cases, the temperature rose on the fifth day after the crisis, and the patient died on the same day with cerebral symptoms. The autopsy revealed the usual lesions of a recent relapsing fever, and the possibility of death from poisoning by the salicylate could be excluded. In all of these twenty-six cases the salicylate was well borne, in spite of the large doses, the only unpleasant symptom noticed being the usual tinnitus aurium. In one case the patient took an ounce of the drug in one day through a mistake, without any marked ill effects. The conclusion drawn by Dr. Riess from these observations is, that the salicylate of soda, when given in large doses for a sufficient number of days, will, in many cases, greatly lessen the duration and severity of the relapse in relapsing fever, and will, in some cases, entirely prevent it. He admits his inability to account for this power of the salicylate over relapsing fever. It is at least certain that the drug does not act by destroying the spirilla, as they were found in the blood during the salicylate-apyrexia.—*Deutsche Med. Wochen.*, No. 52, 1879.

ON THE SECRETION OF URINE.—At a recent meeting of the *Schlesische Gesellschaft, etc.*, Prof. Heidenhain read a very interesting paper on the physiology of the secretion of urine. There are two principal theories extant with regard to this process. Bowman's and Ludwig's. Bowman's theory is to the effect that the malpighian tufts secrete essentially only the water of the urine with a small part of the crystallizable salts, such as the chloride of sodium, while the specific elements of the urine, such as the urea and the uric acid, are excreted by the epithelium of the tubuli contorti. Ludwig, on the other hand, asserts that all the constituents of the urine are secreted in the glomeruli. This theory presupposes three important points, viz.: 1. That the secretion of the fluid in the glomeruli is a purely mechanical filtration through the walls of the capillaries; 2. That the filtrate contains all the constituents of the urine in a very dilute state; and 3. That this fluid, in passing through the urinary tubules, loses water, by diffusion to the lymph surrounding the tubules, and thereby becomes concentrated. This theory is supported by many plausible arguments, but it cannot stand the test of a rigid scrutiny, and of comparison with the processes by which other secretions, *e.g.*, the bile, are developed. Prof. Heidenhain claims that a proper interpretation of the physiological and experimental data necessitates the conclusion that the secretion of urine is not a mere filtering process, but that the epithelium covering the capillary tufts in the glomeruli possesses active secreting powers. It has been proved that both an increase in the rapidity of the blood-current through the kidneys, and an increase in the percentage of water in the blood, augment the secretion of urine, an effect which is due in both cases to the increased amount of water passing over the epithelium of the glomeruli in a given time. The filtration theory would not explain this fact satisfactorily, and neither can it account for the known fact that an increased percentage of urea in the blood augments the secretion of urine. This has been shown by Nussbaum to depend on this, that the epithelium of the tubuli contorti, which secretes the urea, secretes also a large quantity of water, whenever the percentage of

urea in the blood is high. In regarding the epithelial cells of the glomeruli as active secreting agents, whose activity depends on the rapidity of the blood-current passing over them, Prof. Heidenhain shows that we place the secretion of urine on the same standpoint with all other glandular secretions, for the activity of all the secreting glands depends more or less on the rapidity of the blood-current through them. The glands differ only in this: that some require a special irritation through their own special nerves to set them in action (lachrymal, salivary glands), while others act automatically (liver, kidneys).

The secreting epithelium of the glomeruli possesses some interesting peculiarities: 1. It reacts with great sensitiveness to any change in the quantity of water passing over it; 2. It presents an impassable barrier to any small solid bodies that may make their way through the capillary walls of the tuft; 3. It is very sensitive to even temporary interruptions of the blood-current. Overbeck saw the secretion of urine stop for a considerable time, sometimes for as long as three-quarters of an hour, after a mere transitory obstruction of the renal artery. A regular, unbroken supply of nourishing blood seems to be essential for the secretory activity of this epithelium, even a brief interruption of the supply rendering it impotent for a longer or shorter period. Prof. Heidenhain referred to the fact that when the blood-supply falls below a certain point, the epithelium takes up albumen as well as water from the blood. Remeberg has lately attempted to prove that this pathological albuminuria depends on a mechanical cause, viz.: the diminution of the blood-pressure in the glomeruli. The facts, however, on which he relies to support his theory, will not bear scrutiny. It is almost certain that the albuminuria is due not to a decrease of the blood-pressure, but to a decrease in the rapidity of the blood-current through the glomeruli.—*Allgem. med. Cent.-Zeit.*, Dec. 3 and 6, 1879.

Researches on Hearing through the Medium of the Teeth and Cranial Bones.—In a paper with this title, read before the Philadelphia County Medical Society, Dr. Thomas asserted that the audiphone and dentiphone supply to the deaf but a very small fraction of normal hearing—much less, he believes, than a hundredth part. Neither instrument adds anything to the hearing of persons with perfect ears, except when the latter are securely stopped. Repeated tests have convinced him, moreover, that only those deaf persons who can hear their own voices without the audiphone, are enabled with it to hear the voices of others. One great objection to both the audiphone and dentiphone is, that they require the constant service of one hand during their use. To remedy this defect, he has had the receiving diaphragm attached to a rod of wood or metal bent in the form of a pipe stem. One end of this rod is held in the teeth, and the user is then able to listen to the sounds about him, with his hands at liberty. The substance of which the diaphragm is constructed is a matter of importance. Fuller's board, or press-board, coated with shellac, varnish, and thoroughly dried, is the best substance for the purpose, as it is neither under nor over-resonant. The simplest osteophone—a name which Dr. Thomas proposes for all appliances intended to aid hearing by the transmission of articular sounds to the ears, through the medium of the cranial bones or teeth—and one which excels either audiphone or dentiphone in the volume of sound transmitted, consists simply in a rod of hard wood about two feet long and a quarter of an inch thick, one end of which is held against the teeth of the speaker, and the other against the teeth of the deaf person. It is a known physiological fact that the voice produces sensible vibrations in the hard palate and base of the skull of the speaker, and that these vibrations are transmitted with varying intensity throughout the skull, notably to the upper front teeth, the forehead, and the top of the head. By means of the rod osteophone applied to these parts, the vibrations may be transmitted as articulate sounds. The voice-vibrations are also transmitted to the upper part of the chest, whence they may likewise be conveyed by the rod-osteophone.—*Phila. Medical Press*, Feb. 28, 1880.

Posture in the Treatment of Intestinal Colic and Ileus.—On May 1, 1879, Prof. F. H. Hamilton read before the New York Academy of Medicine a paper on "Posture in the Treatment of Strangulated Hernia," as a supplement to which he now publishes a short article urging the value of posture in the treatment of the so-called "spasmodic colic" and ileus. He dissents from the view, that "spasmodic colic" is due to spasm alone, and believes that the true explanation of that affection is as follows: In consequence of an unusual accumulation of gas in the intestinal tube, certain portions of the gut are expanded and elongated, until, under the counter-pressure of the abdominal walls, insufficient room is left for their normal repose and relative adjustment, and they become, at certain points, doubled upon themselves and possibly upon each other, and the sharp angular reflections interrupt or actually occlude the passage. This doubling may be favored by a certain amount of narrowing of the tube from spasm below the dilated portion, or by the presence of a small quantity of hardened fæces. He does not believe that the weak, circular muscular layer of the intestine can possibly do more than slightly narrow the canal, when in a state of spasmodic contraction; complete occlusion from spasm, except at the anus, and pylorus, and perhaps at the ileocæcal valve and the junction of the colon and rectum, is impossible. In the cadaver, moreover, he has often witnessed the doublings spoken of above; while attempting to inflate the intestine, it would become doubled on itself and the passage of air would be suddenly and completely arrested, and the obstruction could then only be overcome by pulling out the intestine, or by disturbing it in some way. He cites several cases, where simply raising the hips has been followed by an escape of gas, and the immediate cessation of the colic. With regard to drugs in the treatment of colic, he has found that a full dose of some aromatic and stimulant cathartic, such as the tincture of rhubarb with ginger, is often more successful than opiates.

In ileus, as in colic, there is a mechanical obstruction from displacement of the gut, but the twisting of the tube, which exists in the former, is less easily rectified than the simple doubling of colic, and is more likely to lead to a fatal issue. It is probable, however, that the two forms of displacement are often combined. Dr. Hamilton believes that posture may occasionally overcome an ileus or disengage an intussusception, and urges that it should at all events be given a trial in addition to the other means of treatment.

The German Pharmacopœia is to be revised, and the new edition will be ready next year.

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THE NEXT MEETING OF THE AMERICAN MEDICAL ASSOCIATION

The next meeting of the American Medical Association will be held in this city, commencing June 1st. From present indications more than the usual number of members and delegates will be present. It is also safe to say that all concerned in the success of the meeting will have reason to be satisfied with the preparations which are made to that end by several of the leading members of the profession of this city. In another place we give a detailed account of the arrangements for the entertainment of the members. A large number of papers are promised for the different sections, and an unusually wide range of subjects will be presented for discussion. It is not necessary to urge upon such gentlemen as intend to read papers to present them in abstract. By this means the subjects are thus made more interesting, the salient points are clearly brought out, and the discussion which follows is apt to be of great practical value. No abstract should be of greater length than would occupy fifteen minutes in its presentation. It has been said of a very successful preacher that his most effective sermons were very short: in fact, he maintained that he never succeeded in convincing a sinner after the first ten minutes of his discourse. The average medical man who attends the meetings of societies is accustomed to take his mental food in very concentrated doses. In this age of rapid thought there is no risk in making any paper too brief. Any new idea that is practical can always be stated in very few words, and easily invite discussion. And after all, the interchange of ideas among the audience stamps the real value of the views of the author. Aside from saving the time in the sections, abstracts are often more valuable than the papers in full; at least, such abstracts are always more widely read because they must be brief and to the point.

Of the general sessions of the Association little can be suggested to make them more profitable, except perhaps to insist upon the same general rule, as to brevity of presentation of subjects, as that suggested for the sections. Fortunately, much of the detail work is now done by committees, and much valuable time is thereby saved. There will come up for consideration by the Association in its general sessions one or two matters of importance. The proposed amendment to the constitution, admitting the Marine Hospital Service to representation in the Association, is one which will doubtless be favorably acted upon.

Dr. T. G. Richardson's proposed amendment to the by-laws regarding the award of prizes will be called up. As will be recollected, the proposition is to the effect that an annual prize of two hundred and fifty dollars be offered by each of the four sections for the best original contribution to medical and surgical progress; also that a committee for the selection of the subject be appointed by the chairman of each section, and also, by the same officer, a committee of experts who shall award the prize. This proposed change is a very good one, and will doubtless be adopted.

In the regular order of business the pending amendment to the code of ethics, which was laid over from last year, will also be called up on its passage. It will be recollected that this forbids the teaching of medicine to such students as have homœopathic or other irregular proclivities, and is virtually intended to apply to the present methods of education as practised at the University of Michigan. The propriety of rejecting the amendment was very ably discussed at the last meeting, held in Atlanta, in an exhaustive argument by Prof. E. S. Dunster, of Ann Arbor. It was hardly necessary that such pains should be taken to show the absurdity of the position taken by the council of the Association. The thinking and progressive men of the profession have long ago decided that medicine is a liberal profession, and that it can lose nothing by allowing its light to shine anywhere and everywhere. The mere fact that a student is likely to become a homœopath or eclectic has nothing whatever to do with his medical teacher, and the Association has no power, legally, morally, or ethically, of calling to account any such teacher, or any school to which he may belong. The Association has really no more to do with a graduate's belief in the action of medicine than it has with his belief in any particular form of religion. Any man can use his knowledge as he sees fit, provided, by the exercise of such a privilege, he does nothing contrary to the laws of the land. It is the height of presumption, for even the American Medical Association, to declare that, unless a man promises to use the knowledge he may receive in a particular way, he shall not be educated. But it is useless to pursue the subject, inasmuch as the defeat of the proposed amendment is a foregone conclusion.

THE STOVER-CATLIN MALPRACTICE SUIT.

On the 9th of May, 1878, Mrs. Amelia Stover, aged forty-nine, fell from a piano-stool, upon which she was standing, to the floor. This fact, which would seem to have little significance except to herself and immediate friends, in the end excited a considerable stir in the medical profession, and drew out some very exhaustive discussions upon the diagnosis and morbid anatomy of fractures of the neck of the femur. Mrs. Stover immediately called in Dr. Elmendorf, and subsequently, Dr. Catlin, both reputable young physicians of Brooklyn. These gentlemen examined her and pronounced the injury only a severe contusion. After treating her for a week, they ceased to call, considering further attention unnecessary, unless specially summoned by the patient. She had refused to be chloroformed, and had used a lotion of cayenne pepper and whiskey, prepared by a relative, instead of the applications prescribed by the attending physicians. A bone-setter, of the name of Sweet, was then called in. He gave the limb a number of wrenches and pronounced the trouble a fracture. At the end of eight weeks, Dr. Ayres, a regular physician, took the bone-setter's place. Dr. Ayres considered the injury a fracture also, and declared that he heard crepitus. He invited Dr. Jas. S. White in as a consultant. Dr. White did not, we believe, examine the case with special care, but took Dr. Ayres's diagnosis and instituted treatment for fracture of the neck of the femur. We may note, at this point, the improbability of crepitus being heard at the end of eight weeks, when it was not heard at the time of the injury. If crepitus really existed, it can only be explained by supposing that the bone-setter, Sweet, broke the limb with his manipulations, or loosened an impacted fracture.

The patient, after suffering for a long time, finally, at the instigation of her friends and seconded by the friendly and disinterested sympathy of her lawyer, brought suits against Drs. Catlin and Elmendorf for damages to the amount of $100,000, at which trifling sum she placed the injury done to her limb by the alledged unskilfulness of those surgeons. A number of eminent surgeons were summoned as experts, and the trial, which recently came off, lasted several days and excited much interest among medical men. Drs. Ayres, James S. White, Carnochan, and the bone-setter, testified that the leg was fractured. Drs. Frank P. Hamilton, Sands, Geo. K. Smith, Johnson, Hutchinson and others, testified that there never had been a fracture, or most probably never had been. The injured limb, when examined a few months ago, was found to be three-eighths of an inch shorter than the sound one; it was somewhat shrunken, and there was the slightest possible eversion. Dr. John G. Johnson, one of the medical committee appointed by the Court to examine the case, was of the opinion that the woman affected more pain than she really had, also that she tried by tilting the pelvis, to make the injured limb measure less than it should. He did not believe that there was a fracture.

We have given these facts somewhat at length, as the case is an instructive one, and we should wish each reader to form his own opinion upon its merits.

It does not seem, however, as though a candid study of the facts could lead to any conclusion other than that the prosecution was an uncalled-for and unjust one. It is barely possible that there was a fracture in the beginning.

If this was so, it was, nevertheless, shown that a diagnosis at the time was absolutely impossible by any ordinary skill; and further, that the final result was really much better than usually occurs in such cases.

The supposition, however, that there never was any fracture had the weight of surgical authority on its side, and appears, from the facts given, to be much the more probable one. The slight difference in the length of the limbs might easily be normal. The patient was of a strumous constitution, and it is quite possible that a chronic inflammatory condition of the joint was excited by the original injury, or the manipulations of the bone-setter.

Whatever view be taken of the pathological condition, it was the fall that brought it about; and it was a condition in which no ordinary skill could have made a different diagnosis from Dr. Catlin's, and in which even extraordinary skill could not have furnished more relief than was eventually obtained.

But there is still a large class of persons which demand a revolution of the course of nature from physicians. Mrs. Stover had a strumous constitution. Mrs. Stover could not balance herself on the piano-stool; therefore, two young physicians must be impoverished and have their hopes of professional success blasted. That is the real relation of facts upon which the plaintiff would insist. By no twisting of these facts can it be shown that the defendants did not exercise reasonable skill.

Much more was proved for the defendants, but this is enough in law, and equity also.

The trial produced a diversion on the subject of intra-capsular fractures that is worthy of noting. The general belief that in intra-capsular fracture union is never osseous was stoutly denied by Dr. Carnochan. This gentleman showed in court a specimen of what he called intra-capsular fracture, in which he claimed that there was osseous union. This specimen has been, we believe, a pet and pride for many years. On examining it, Dr. Frank H. Hamilton declared his belief that either the union was fibrous, or the fracture was extra-capsular. The court permitted him to saw the bone in two, and it was shown at once that there was an extra-capsular fracture, with osseous union.

There was a great deal of other talk on the subject of extra and intra capsular fractures, the attachment of the capsular ligament, and the difficulty of diagnosing fractures of the neck of the femur. It is doubtful, however, whether anything new was added to science, unless it was the confounding of the intracapsular union party. The shameful injustice of most malpractice suits is, unfortunately, an old, old story. The jury in this case disagreed, nine being for and three against Dr Gathu. The charge of the judge was favorable to the defendant; but that did save the doctor with a crippled woman against him and the average juryman to weigh the evidence!

It is not likely that the plaintiff will ever secure a verdict; but even if she does not, and the defendants are fully vindicated before the law, they will have suffered a great injury, without justice or reason.

CURES BY FAITH.

It is stated that an institution has been started in Springfield, Mass., for the cure of diseases by the prayers of faith, the laying-on of hands, and sometimes anointing with oil. All persons afflicted in body or mind, who believe that they can receive physical or spiritual help, are welcome. The Home is under the charge of two ladies known as "Sisters Orpha and Rosa." One of these says that she was healed by faith of a grievous disease of long standing a few years since. As a large number of persons are cured who put their faith in glucose pills or the assurances of a favorite physician, we ought not, perhaps, to deny entirely the therapeutic usefulness of the new Home and faith in prayer. It would be well, however, for the Sisters to know of a recent decision in the English courts regarding treatment of the sick by prayer alone. There is a sect in London known as The Peculiar People. The members never call in a physician, but treat their sick with good food and prayer to God. A little boy, suffering, we believe, from dysentery, was so treated. He grew worse; the father would not send for a medical man, and the child eventually died. The father was indicted in the courts for manslaughter and was convicted. The case may not be entirely applicable to the Springfield Home, as it is intended only for those who voluntarily present themselves for treatment. These must have full faith. Very likely many of the persons who would present themselves to the institution belong to the class who could be benefited by the system of mental therapeutics to be established there.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MEDICINE IN GERMANY.—A commission has been appointed by the Chancellor to determine what reforms are needed in the requirements exacted of candidates for the degree of Doctor of Medicine. An examination in ophthalmology is already required, and Professor von Troeltsch has drawn up a petition asking that otology be added to the list of requirements.

Reviews and Notices of Books.

THE HYSTERICAL ELEMENTS IN ORTHOPÆDIC SURGERY. By NEWTON M. SHAFFER, M.D. New York: G. P. Putnam's Sons. 1880.

DR SHAFFER has made a valuable contribution to orthopædic surgery in the present short work. The subject of the hysterical element in joint-diseases, first mentioned by Brodie, has been touched upon more or less fully since then by Paget, Shey, Esmarch, Berger, and others. A tolerably good description of articular neuralgias is to be found in Ziemssen's Cyclopædia. Nevertheless, no adequate prominence has ever been given to the subject of late even in orthopædic text-books. In the work before us, the symptomatology of the neuromimetic joint-affections is discussed with especial fulness, and is illustrated with a number of striking cases. The differential diagnosis between chronic synovitis, chronic osteitis, and the chronic neuromimetic conditions is given with much care and fulness. The author describes the muscular conditions in joint-diseases, and concludes with a summary of the diagnostic points in emotional contractions, hysterical contractures, and the reflex spasms of inflammatory disease.

The value of Dr. Shaffer's book lies in its bringing into distinct notice a series of pathological conditions that have been heretofore in part unknown and in part ignored.

A GUIDE TO THE PRACTICAL EXAMINATION OF URINE, for the Use of Physicians and Students. By JAMES TYSON, M.D. Third edition, revised and corrected, with illustrations. Philadelphia: Lindsay & Blakiston. 1880.

THIS little work acquired a solid reputation on its first appearance in 1874, and it has been used as a text-book in a number of medical colleges since then. The present edition contains no especial changes or additions, but shows the popularity of the work.

STUDENTS' AID SERIES: PHYSIOLOGY. By B. THOMPSON LOWNE, F.R.C.S. Therapeutics and Materia Medica. Part II. (Double Part): The Vegetable and Animal Substances. By C. E. ARMAND SEMPLE, B.A., M.B., Cantab., etc. New York: G. P. Putnam's Sons. 1880.

THE above volumes of the Student's Aid Series are carefully prepared, and present a good deal of information in a condensed form. We have before expressed our opinion of the present fashion of multiplying students' aids of various kinds, which really only encourage cramming and superficiality. If such books must be published, doubtless the present series is as good as any.

POST-MORTEM EXAMINATIONS, with especial Reference to Medico-Legal Practice. By Professor RUDOLPH VIRCHOW, of the Berlin Charité Hospital. Translated from the Second German edition, by Dr. T. P. SMITH. Philadelphia: Presley Blakiston. 1880.

THE value of this useful little manual should not be judged from its size. Although it is small, not to say diminutive, it is sufficiently clear, concise, and withal comprehensive, to form a complete guide toward a thorough performance of autopsies. In this country especially, where the records of post-mortems are commonly incomplete or otherwise deficient, the adoption of Virchow's system would

prove very beneficial to the progress of pathology. Deputy coroners would do well to study his method and make it their own. Of course it is impossible, in every instance, to devote three hours' time to the performance of a necropsy. But the system might at least be profitably imitated, which would secure a desirable uniformity in the manner of conducting investigations and drawing up reports. We heartily welcome this excellent little work from the pen of Germany's distinguished pathologist.

THE HAIR: ITS GROWTH, CARE, DISEASES AND TREATMENT. By C. HENRI LEONARD, M.A., M.D. Detroit: C. Henri Leonard. 1880. 8vo, pp. 316.

IT will depend much upon the temperament of the reader whether this book appear curious and interesting, or only ridiculous. It consists of a mass of facts, calculations, anecdotes, legends, and speculations about the hair, gathered from all kinds of sources, including the Zend Avesta and Mr. Darwin, and presented in a sufficiently readable form. There is a great deal of information that is trite and unimportant; and a great deal of speculation that is absurd. We may instance the remarkable computation concerning the hair of the people of New York and Brooklyn. If these hairs were placed end to end they would make a line so long that it would take a railroad car, travelling at the rate of a mile a minute, for sixty years to pass its whole length. This is a remarkable fact, and gratifying to the people of New York and Brooklyn; but it is more adapted to the atmosphere of a Museum of Anatomy and Art than to a presumably scientific work. The author has devoted much time to similar calculations, taking, for the most part, the people of Detroit as his basis.

The latter part of the book, in which diseases of the scalp are treated, is more satisfactory, and the reader is likely, on the whole, to be considerably entertained by its perusal.

There are numerous illustrations, and these, as well as the printing, are very well done.

EYESIGHT: GOOD AND BAD. By ROBERT BRUDENELL CARTER, F.R.C.S. With numerous illustrations. London: Macmillan & Co. 1880. 12mo, pp. 267.

THIS little book is intended, as the author states in his preface, to spare the surgeon the trouble of constantly repeating to his patients the precepts and injunctions which it is desirable they should know and understand.

After a careful and, we may add, profitable perusal of the work, we can safely say that he has succeeded very well. We have caused some of our more intelligent patients to read it, and find that they generally appreciate the author's ideas. If systematically read, nothing will appear obscure to the intelligent reader, but there are few except specialists, who would thoroughly comprehend any special chapter without reading the book from the commencement to that chapter. This is due to the nature of the subject. The author, whose reputation has been made by his popular writings on ophthalmology, has avoided the use of technical terms as far as possible, and his manner of presenting the facts has made the book a very pleasant one to read.

It contains much information not found in the text-books, and no subject of importance appears to have been omitted. The illustrations are quite simple, though adequate to their purpose. Frequent quotations from the author's note-book of cases, which are remarkable and certainly very unusual, increase the interest of perusal.

HOW TO EDUCATE THE FEELINGS OR AFFECTIONS, and Bring the Dispositions, Aspirations, and Passions into Harmony with Sound, Intelligence, and Morality. By CHARLES BRAY. Edited, with notes and illustrations from the Third London edition, by NELSON SIZER, of New York. New York: S. R. Wells & Co. 1880. 8vo, pp. 226.

IN this work the author undertakes to show those feelings and affections which should be cultivated, as well as those that ought to be repressed. General rules are given as to the management of children, with especial reference to the proper education of their minds and the elimination of the baser passions. On the whole, the book is worthy of consideration by those who are interested in the subject of phrenology.

A HANDBOOK OF HYGIENE AND SANITARY SCIENCE. By GEORGE WILSON, M.A., M.D., and C.M. (Edin.), F.C.S. Fourth edition, enlarged and carefully revised. Philadelphia: Lindsay & Blakiston. 1880. 8vo, pp. 468.

THIS book is intended chiefly for the use of medical officers of health, but will no doubt prove to be of great advantage to all those who are interested in the study of the subject of sanitary science. The chapters worthy of special mention are those on "Preventable Disease," "Examination of Food," "Ventilation and Warming," and "Water Analysis." A chapter is also devoted to the Sanitary Construction of Dwellings. The author has treated his subject in a masterly way, and the work is one which can be read with great advantage by all members of the medical profession.

SORE THROAT: ITS NATURE, VARIETIES, AND TREATMENT, including the Connection between Affections of the Throat and other Diseases. By PROSSER JAMES, M.D. Fourth edition, illustrated with hand-colored plates. Philadelphia: Lindsay & Blakiston. 1880. 8vo, pp. 318.

THE sale of a third edition of this work in the space of three months would show that it possessed more than an ordinary degree of merit. The author enters very fully into the different forms of sore throat, and in a concise manner gives the best methods of treatment.

In regard to the greatly disputed point of the identity of croup and diphtheria, the writer states that he considers them to be separate and distinct diseases: in the former death taking place by blocking up the air-passages and suffocation; in the latter death is occasioned by blood-poisoning. The work is well gotten up, and we hope to see it pass through many more editions.

THE HYPODERMIC INJECTION OF MORPHIA: Its History, Advantages, and Dangers. (Based on the Experience of 360 Physicians.) By H. H. KANE, M.D. New York: Chas. L. Bermingham & Co. 1880. 8vo, pp. 354.

THE author says, in the preface of the work, that on commencing the study of the above subject, it had been his intention to write only a few short journal articles, but from the number of replies he received in answer to a series of questions, which have already been published in this journal, he was enabled to write a small book. He begins by giving an account of the discovery of the method of injecting morphia hypodermically, and a description of several minor details in connection with the operation. In treating of the subject of narcotism, he cites cases in which one-sixth of a grain of the drug employed hypodermically produced unfavorable results, and

where death was averted only after several hours of incessant labor, with the electric battery, etc. He advocates the use of all the means at our disposal of an antidotal character, and gives a table of drugs which may be employed for this purpose. The author strongly urges the use of a tourniquet in case of hypodermic injection, especially when a vein is accidentally punctured. The tourniquet consists of a heavy tape or strap, at the end of which a patent buckle is attached, and this is placed on the arm above the point of puncture. By having this loosely applied, it will be ready for use in cases of emergency. The merit of the book lies in the fact that it is based on the experience of several careful observers. It is a work that every practitioner of medicine should have in his library.

A Lecture on Median Lithotomy. Delivered before the Brooklyn Anatomical and Surgical Society. By Dr James L. Little. New York: G. P. Putnam's Sons. 1880.

Dr Little's paper contains a very interesting account of the history of median lithotomy, with a statement of its special advantages. Dr. L. describes the staff with a bulging curve and deep groove which he is accustomed to use in the operation. Referring to lithelapaxy, he states that while it will undoubtedly decrease the number of cutting operations, it is really a more dangerous operation than lithotomy, except in very skilful hands.

Reports of Societies.

OBSTETRIC SECTION OF NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 22, 1880.

Dr. Salvatore Cardo, Chairman; Dr. Henry E. Crampton, Secretary.

REST AFTER DELIVERY.

Dr. H. J. Garrigues read a paper which was a revised edition of his former paper on the subject, read Sept. 8, 1877, and published in the "Proceedings of the Kings County Medical Society." The question was "How long should a woman remain in bed after confinement?" It was desirable that practice, in this particular, should be as uniform as possible, and the author believes that the views entertained should not be so divergent as at the present time.

The chief representative of those who recommended that the time should be shortened as much as possible, was Dr. Wm. Goodell, of Philadelphia. At this point Dr. Garrigues referred to a case in which the woman was urged by her medical attendant to rise early, and she rose on the fourth day after delivery; and on the fourteenth day she was induced to ride in a carriage, but it was nearly at the cost of her life. From that single illustration, however, he did not wish to draw any definite conclusions.

At the time Dr. Goodell's paper was read, 756 cases were reported, with a total mortality of only six; and the chief reasons why its author recommended early rising after delivery were the following: 1. Labor, if it was a physiological process, should not be made to wear the livery of disease. 2. The upright position excites the uterus to contract and thereby lessens the amount and duration of the lochia. 3. Uterine diseases are not known among the nations where women rise early after delivery, and I. Taperner has shown that convalescence is far more prompt and sure than when the woman is kept in bed for a prolonged period. To those points Dr. Garrigues directed the attention of the Section. He maintained that although parturition was a physiological process, it was one in which the transition from the normal to the pathological condition was extremely common, and that was especially true of women of modern times. Again, if the upright position favored the discharge of lochia and diminished its amount and lessened its duration, it must also be borne in mind that serious displacements were liable to be produced by placing the woman in that position before the changes incident to the puerperium state had gone on sufficiently to enable the tissues of the pelvis to resist properly superincumbent weight and pressure; and therefore by other means should the influence of the lochia be modified. While it might be true that uterine disease did not apparently exist among the women of nations where early rising after delivery was commonly practised, there were two factors by which such a conclusion must be modified when applied to modern civilized women, first, not much was known of uterine disease in ancient nations, and, second, modern women, with all the enervating influences of what is termed civilization, cannot resist disease as did the ancient or the modern uncivilized matrons.

With reference to the good results obtained by Dr. Goodell, he thought they were due to the general excellent care given to his patients, rather than to early rising, and besides he thought it impossible to judge of final results by those obtained in the average length of time which the woman remained in the retreat after delivery.

Dr. Garrigues then quoted from leading authorities in the three chief countries in Europe, all of whom recommended absolute rest in the horizontal position for one, two, and even three or four weeks after parturition. In New York, also, most obstetricians favored the long period of retention in bed after delivery.

The author of the paper then directed attention to anatomical and physiological facts relating to the measurements and weight of the uterus after parturition. As given by different observers, Berner, Henschell, and supplemented by Küstner in the *Archiv für Gynecologie*, Funfzehnter Band, 1879. He also referred to Dr. Van de Warker's paper in the *Am. Journ. of Obstetrics* for July, 1878, and Dr. Frank P. Foster's paper on the "Topographical Anatomy of the Uterus and its Surroundings," in the same journal for January, 1880, and then spoke of the changes that occur in the uterine mucous membrane and the muscles and skin of the abdomen.

In the language of the author of the paper, "anatomy and physiology teach us that the puerperal uterus is large, heavy, flabby, anteverted and anteflected; that all the surrounding parts destined to support it are distended, soft, and yielding; that its interior presents one large wound, bathed in a fluid rich in disintegrated tissue-elements; that the placental site is pervaded by large venous sinuses, filled with recently formed blood-clots; that at least the vaginal orifice and often other parts of the obstetric canal present open wounds; that the process of transformation, absorption, and regeneration required at least two months; and that the retrogression is most active during the second week."

It was not necessary that the woman should lie upon her back after the first twenty-four hours, but

her position might be changed to that upon either side. The liability to hemorrhage, displacement of thrombi, causing sudden death, and the occurrence of septicæmia, was regarded as sufficient reason for insisting upon rest in the horizontal position for several days at least after delivery. The vagina should be kept clean with disinfectant injections. It was with reference to rest after delivery in normal childbirth that it was desirable to reach a unanimity of opinion. Upon that point Dr. Garrigues had reached the conclusion, from the combined teachings of experience and physiology, that the woman should be kept lying quietly in bed, alternately upon the back and side, until the uterus has contracted sufficiently to be behind the symphysis, and for two months she should avoid any great exertion.

Dr. Isaac E. Taylor remarked that the views held by Dr. Goodell were substantially those entertained by Hamilton and White, and published several years ago. The important point, however, was with reference to the management of the woman after normal natural labor, and he did not agree with Dr. Goodell, because he believed that we must be guided by the nature of the case under observation: what was the woman's physiological condition? what was the condition of the uterus as regards its length, weight, and position? etc.

Dr. Taylor then referred to a case in which the uterus returned to the pelvic cavity within five days after delivery, and the woman made a rapid and good recovery; but not every case progressed so favorably as that one. He kept the woman in bed until the uterus had returned to the pelvic cavity, whether it required one or four weeks. So far as rest after delivery was concerned, we must judge by the constitution of the woman. Rising within two or three days and sitting on a vessel would, doubtless, facilitate removal of clots and also the lochia; but if the woman suffered formerly a good deal from the discharge, etc., he kept her in bed three or four weeks. There could be no line drawn or rule laid down which could be made applicable to every case.

Dr. Sell remarked that if the woman was properly bandaged and a pad was worn, getting up and down would not displace the uterus, and would favor discharge of the lochia. But the management of the puerperal period must be left to the judgment of the physician at the bedside of the woman. So long as the uterus could be felt above the brim of the pelvis, women in Vienna were not allowed to leave their beds.

Dr. F. V. White spoke of the efficacy of washing out the vagina with Labarraque's solution, in disinfecting the lochia and preventing the development of puerperal fever.

Dr. S. T. Hubbard remarked that he had found a great difference among women with reference to the time after delivery at which they could get up without injury. His rule had been to keep them in the recumbent posture, if possible, nine or ten days, and prevent them from walking for two weeks. He thought the time must be regulated by the attending physician, without reference to any rule.

Dr. Tausky fully agreed with Dr. Garrigues, and also believed that an important factor in preventing the development of puerperal fever was maintaining the recumbent posture after delivery for a week or more. He referred to a case in which the woman, feeling perfectly well on the fifth day after a normal labor, arose, and puerperal fever immediately followed. Some women might get up on the first day after delivery and no harm follow; and so it occasionally occurred that a person fell from a third-story window and received no serious injury, but he regarded such as exceptional cases, and thought that no woman should rise before the eighth or ninth day after a normal labor. He also approved of injections of the cavity of the body of the uterus as recommended by Hegar, whenever the internal os was patulous.

Dr. O'Sullivan practised retention in bed after delivery for nine or ten days, and as much longer as possible. He did not approve of vaginal or uterine injections, believing that if proper contraction was secured the uterus would be properly emptied.

Dr. J. N. Merrill endeavored to keep the lying-in woman in bed from nine days to three weeks. He believed that uterine disease was very prevalent among the poor classes.

The Chairman remarked that we not need go to Rome to study Roman women, for they were here; and he then referred to his experience among Italian women in the city of New York, which had been that early getting up after delivery frequently destroyed the life of the woman, and was a most prolific source of all kinds of pelvic disease. He never allowed a woman to rise, if it could be prevented, before the ninth or tenth day. He regarded cleanliness as godliness, but it was a virtue which most of the Italian women discarded; and doubtless their habits in that respect contributed largely to the development of diseases among them.

Dr. Garrigues, in closing the discussion, remarked that he took it for granted that there were injuries more or less severe to the obstetric canal in every case of labor. The injury might be very slight, but it was sufficient to permit the absorption of septic material; hence the care that should be taken to keep the passages properly cleansed and the discharges properly disinfected.

The minimum time which he would keep the woman in bed was eight days, a period long enough to allow granulations to form for the repair of injury done to the tissues of the obstetric canal.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 6, 1880.

Fordyce Barker, M.D., LL.D., President, in the Chair.

Dr. J. C. Peters delivered a memorial address upon the late Dr. Freeman J. Bumstead. At the close of the eulogy, a portrait, in crayon, of Dr. Bumstead was presented to the Academy.

OBLIQUE SECTION OF SKIN IN SURGICAL OPERATIONS.

Dr. John H. Packard read a paper entitled, "On some important advantages to be secured by oblique section of the skin in surgical operations." [The paper appears in full in another part of this journal.]

The paper being open for discussion,

Dr. Jas. R. Wood said that the late Dr. Valentine Mott had advocated, especially in operations on the scalp and face, oblique incisions. To stop the hemorrhage, he did not use torsion, but he left his wounds open until hemorrhage had ceased. He then closed the wound, if on the scalp, by twisting the hair and tying it, so as not to make punctured wounds with the needle. In this way he would get union by the first intention. Dr. Mott used to teach that this bevelling of the integument was very important, especially in operations on the face of females. We can now, however, make this method more uniformly applicable, because we have hot water and carbolized catgut with which to staunch

hæmorrhage. Dr. Wood advocated the method suggested by Dr. Packard, although he, as a rule, believed in the open treatment of wounds. Dr. Wood had used catgut, but he had not always been able to prevent suppuration. He was satisfied that there was a good deal in the catgut ligature, but it was not perfectly reliable. Dr. Wood said that he once witnessed a beautiful operation in Philadelphia, many years ago, in which Dr. Pancoast, Sr., made a new nose. He bevelled off the integument of the forehead, then grooved the edges of the nasal opening where the new nose was to be. The two parts were then fitted into each other, and the union was rapid and perfect.

Dr. Frank P. Hamilton said that he could see one objection to Dr. Packard's plan, viz.: that by making oblique incisions where the skin was very thin there might sometimes be sloughing. On the other hand, better apposition might be secured, and a larger part of the incision would be in the more vascular part of the tissues. These were two very apparent advantages.

Dr. Alfred C. Post said that he had not practised this method, but he had long been satisfied that broad surfaces should be applied to each other in closing wounds. He had been in the habit of bringing such surfaces together, using deep sutures and keeping the parts in place by splints. In this way he had secured union in fistulæ, etc., where the edges alone would have healed together with difficulty.

In operations about the vagina the method of bringing broad surfaces together, as suggested by Dr. Post, was absolutely necessary.

Dr. Leste said that he thought the suggestion of Dr. Packard would be a very useful one. In reference to closing up wounds at once, he thought it preferable not to do this in country practice, where the patients could only be seen once in two or three days. In was safer, he thought, to carry out the open treatment, and thus lessen the possibility of accidents.

Dr. A. C. Post said that in cases where a large cavity is left after the operation there is no question about the necessity of keeping the wound open; but there was often an error in keeping the drainage-tube in too long. If not removed in two or three days after the operation, it was likely to become only a source of irritation.

Dr. Webster said that some six or eight weeks ago he witnessed the removal of a deeply seated orbital tumor. The incision was made vertically, the tumor enucleated, and the wound closed with silk sutures. The wound closed immediately, there was a very slight scar, and the result seemed to be quite as good as that in the case reported by Dr. Packard.

Dr. Robert F. Weir had twice used Dr. Packard's method, and thought favorably of it. As regards the possibility of sloughing, he said the incisions in cornea for cataract had for years been made obliquely, yet there had been no sloughing in such cases, so far as he was aware, although the tissue was a non-vascular one.

Dr. F. P. Hamilton said that Mr. Pierson, in his directions for opening cold abscesses, stated that the incisions should be made obliquely. He had followed this direction a few times with satisfactory results.

Dr. Harwood related a case of removal of tumor of the face. The wound was closed with sutures and dressed with carbolized oil. The next day the union had taken place, and a week later the scar was very slight. In this case the incision was vertical, and the dressing applied in the ordinary way.

Dr. Packard, in concluding the discussion, said that, 1st, as regards Dr. Wood's open method, he was entirely in accord with him. He regarded the open, fresh air a very positive malignant element. But it did not seem to him that the idea of the open method militated against his theory of oblique incision at all. There were classes of cases for which each was most applicable. The remarks of Dr. Wood reminded him of what Dr. Paget says of the distinction between immediate union and union by first intention. He thought the distinction an important one. In immediate union, there is union with no effusion of lymph. Now by the oblique method, this union is more likely to be obtained. And the point is, in the method, to secure the skin as to have the edges closely in apposition, and the sides of the cavity so brought together as to prevent the formation of any cavity; the atmospheric pressure helps to secure this result.

2d.—In reference to the danger of sloughing, he referred to case of skin grafting. The facts regarding this were a sufficient answer to the suggested danger.

3d.—In regard to how much bevelling of the skin there should be, a case was necessary to show it perfectly. The incision must be made very obliquely. It should be made at an angle of 30° or more. There is all the difference in the world between such extreme obliquity and a slight amount. Some surgeons had totally misapprehended him on this point.

4th.—Dr. Packard was aware that the idea of oblique incisions was not new. He recollected Dr. Pancoast's operation for rhinoplasty, referred to by Dr. Wood. This was, however, for a special operation only. The points he (Dr. Packard) urged, were the uniform advantages of the oblique incision in securing accurate apposition of the skin, and in preventing the formation of a cavity.

5th.—In reference to whether it should include the subcutaneous tissue, he did not mean it to include this, except, perhaps, in tumors of the breast. The use of hot water, as a hæmostatic, he considered one of the greatest additions to modern surgery.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 24, 1880.

Dr. Satterthwaite, President, in the Chair.

Dr. Gibney presented a specimen of lupus of the conjunctiva on behalf of a candidate for admission to the society.

Dr. Briddon presented a leg removed by amputation at the knee-joint, from a male mulatto, who suffered from senile gangrene. The line of demarcation had formed half way up the leg. The cause of the gangrene was supposed to be arteritis, but no opportunity had been afforded for a careful examination of the vessels of the part.

He also exhibited a specimen of cancer of the breast, removed by Dr. Harrison, house surgeon of the medical department of the Colored Home.

Dr. Briddon lastly presented a negro child upon whom he had performed Reeve's operation for genu valgum. The history was given as follows.

CASE OF "REEVE'S OPERATION" FOR GENU VALGUM.

Ida Christian, brown-skinned, rachitic child of four years, has been an inmate of the institution for some time. In walking, the feet are separated about eight inches, and the knees alternately cross each other; the deformity is not so marked in the recumbent position.

November 5, 1879, under the influence of ether, and with the spray directed on the parts, an incision, vertical in direction, was made three inches above the internal epicondyle of the right femur, long enough to admit a chisel three-quarters of an inch wide. The instrument was carried down to the bone, and then rotated so that its edge was directed transversely to the shaft, and was then driven by successive taps of the mallet in an oblique direction, toward the inter-condyloid notch, until it was presumed that it had approached to within a quarter of an inch of the articular surface; the instrument was then withdrawn, and again introduced along the anterior and posterior borders of the first section; the condyle was then detached, with an audible snap, by forcibly straightening the limb, and the wound was protected by the antiseptic dressing.

The same operation was then repeated on the left limb, but before it was possible to detach the condyle on this side, the end of the chisel was driven into the joint, and could be felt underneath the skin; this was also put up with the same precautions as the other, and they were both secured in the straight position by long, padded splints, reaching from the axilla to the side of the foot.

There was scarcely any local or general reaction; the temperature went up one degree the day after the operation, and then subsided to the normal.

Twenty-four hours after the operation the dressings were removed, and found stained with bloody serum; after this there was very little discharge; the drainage tubes were removed on the sixth day; by the sixteenth day the wounds were healed, and passive motion was commenced and was subsequently used every day, but the side-splints were kept applied until the forty-sixth, when the child was put upon her feet; for a couple of days after the attempt at walking, there was a little tumefaction of the joint, and upon its subsidence, passive motion was again used. January 8, 1880, nine weeks after the operation, the limbs are perfectly straight, and the child walks well but stiffly; passive motion is painful, and resisted by the extensors and by a general effort of the child, but the leg can be flexed to a right angle with the thigh.

I directed the house surgeon that passive motion be done under the influence of ether, so as to forcibly break up any adhesions; two days after, I was informed that even under the anæsthetic the limbs could only be flexed to a right angle, and that on making an effort to increase the range of motion something was felt to snap in the right joint. I saw the child on the following day; found some heat and slight swelling in both joints. I advised that rest should be enforced for a few days, and that on the subsidence of local disturbance, passive motion should be resumed.

March 22d I again examined the patient; the limbs were perfectly straight, she could flex them to a right angle, and walked about with ease; on examination, there was complete evidence that there had been separation of the epiphysis of the tibia on the side on which the snap had occurred during the forced flexion under ether, and that union had occurred whilst the child had been on its feet, and in spite of the passive movements that had been regularly used during the same period; the evidence was a slight anterior angle at the junction of the epiphysis with the shaft, and a bony fusiform swelling, prominent to the eye, but not interfering with the movements of the limb, and I regarded it as a remarkable and interesting feature in the case, that such good results should have obtained under such circumstances.

RECOVERY FROM KNOCK-KNEE.

Dr. Gibney asked if any of the members had seen a case of knock-knee recover without operation or instrumental aid. Dr. Briddon did not believe such a thing possible in any case of genu valgum, although he had seen recoveries from the ordinary bow-leg.

Dr. Gibney remarked that when the genu valgum depended merely upon relaxation of the internal lateral ligaments of the knee, recovery was possible when suitable support was made, but when the same deformity was due to rachitic enlargement of the internal condyle, a surgical operation was the only trustworthy method of treatment. Dr. Gibney believed, in the case of bow-legs said to have recovered, it would always be noticed that the tibia retained its bend. The latter, however, by the growth of the bone, became of comparatively small size, appearing as a slight localized bulging forward and outward just above the ankle.

Dr. Blumenthal stated that he was accustomed, in all cases of bow-legs, to assist nature by supporting the outside of the limbs by a suitable steel splint.

Dr. F. V. White referred to the case of a child who suffered from bow-legs, but who recovered perfectly without mechanical treatment. The patient was nineteen years of age, had perfect limbs, and was somewhat of an athlete.

Dr. Sell exhibited a silver coin (25 cent piece) which was passed per rectum and without treatment three days after it had been swallowed. Dr. White asked if any of the members had seen a case of poisoning from copper after swallowing the ordinary cent, remarking that he had met with one such in his experience.

Dr. Sell presented a small polypus of the cervix removed from a patient aged twenty-nine years, who had suffered from uterine hemorrhages for several years. The growth was removed by the ecraseur and recovery resulted.

A third specimen presented by Dr. Sell consisted of a tænia solium discharged per rectum from a woman who had been ailing for nine months with the usual symptoms attending the presence of the worm. The passage of the tænia was effected by a paste formed of pumpkin seed, sugar, and etherial extract of male fern taken fasting.

The Society then went into Executive Session.

Correspondence.

THE CURE OF CATARACT BY ELECTRICITY.

To the Editor of The Medical Record.

Sir:—I hasten to correct the statements in your last issue of Dr. Agnew and Dr. Webster concerning the case of Mrs. M.

The patient came to me July 26, 1878, with cataract of both eyes. The diagnosis was made by Dr. Webster, who informed her son that an operation would be indispensable, and that the cataract would be ripe for it in about two years. After the galvanic treatment, however, all the symptoms of cataract, which had been gradually increasing *during several years*, entirely disappeared, and the patient became

able to read the smallest print, and see as well as before. She then presented herself to Dr. Agnew, who, on examining her eyes, said that there was no cataract, and that her vision was as good as could be expected at her age. Recently, after the lapse of nearly two years, Dr. Webster made a new examination, and found that some opacities still exist, although her vision in both eyes, since my treatment, continued to be very good, and she could read the smallest print, which she was unable to do before. As regards any opacities that may have remained in the lens, I have no doubt that they can be dispelled by additional treatment, as in a number of other cases where the treatment was more prolonged.

In my article in Virchow's Archiv * I quoted this case as authentic, entirely relying on Dr. Agnew's statement to the patient, not having seen his notes. I therefore leave the responsibility for the alleged discrepancy in the diagnosis to Drs. Agnew and Webster, referring them and the reader to the patient and her son.

This case, however, cannot change the fact that cataract yields to galvanism. The method, which I fully described, is now tested by disinterested and competent judges, and will, undoubtedly, soon be adopted by the profession.

The remarkable effect of the galvanic current in cataract, and especially in diseases of the choroid and retina, even in some incurable diseases, will soon render the use of the galvanic apparatus as indispensable to the ophthalmologist as that of the ophthalmoscope.

W. B. Neftel, M.D.

To the Editor of The Medical Record.

Sir:—I have, this day, had the first opportunity of examining the eyes of Mrs. H. B. W——, whose case was published with so much *éclat* in the *Churchman* and *Virchow's Archiv*, my name being connected with it in the latter journal. I saw the lady, who appears to be over sixty years of age, for the first time May 16, 1878. The record in my book states: Diminution of sight and dazzling for a year: S. B. ♀, L. ⅝ : reads finest print with her glasses; posterior pole of lens, opaque: periphery beginning also, etc. In the course of a year she paid me two other visits. I noticed that her sight at distance grew worse, though the cataract made little progress. Under Dr. Neftel's treatment she became able to read without her glasses, though, as she informed me, her sight at distance was dull. The examination of to-day showed about the same vision for distant objects as she had when I examined her last, June, 1879. She could read, near by, ordinary, but not finest type. She read without glasses, but lately found that her sight for the distance was improved by concave glasses. On examination with oblique light and the ophthalmoscope, I found that in the left eye there was very marked opacity in the central region of the posterior corticalis and at the equator in both the anterior and posterior cortex. The details of the fundus, which I could formerly see and found normal, have become invisible by the cataract. In the right eye the same condition exists, but less advanced.

The cataract, therefore, has neither been cured nor arrested; nor has her acuteness of vision improved.

The deception was caused by the fact that the patient, during the slow development of a posterior cortical cataract with sclerosis of the nucleus, became nearsighted, which frequently takes place, as is well known to every oculist. The so-called "second sight" of old people, which means that they get able to read without their glasses, is always an indication of incipient cataract, but what they gain in near they lose in distant vision.

Respectfully, H. Knapp, M.D.

New York, May 16, 1879.

* Dr. W. B. Neftel: Ueber die galvanische Behandlung der Cataracta incipiens. Virchow's Archiv, Bd. 79, p. 165.

RED PERSPIRATION IN AXILLÆ.

To the Editor of The Medical Record.

Sir:—The extract in your last issue entitled "Red Perspiration of the Axillæ" brought to mind *several* cases which I have seen within the past two years.

In each instance the patients were afflicted with pediculi pubis, and the axillæ were inhabited. The hairs in the armpits were invariably matted together with the "honey" secretion, and microscopic examination revealed what might, in truth, be called "glittering spores."

At first I concluded that the "honey" secretion was a sebaceous matter, but now am quite sure it bears some relation to the nutrition of the ovi, as in the case of spiders' eggs.

As for treatment, a little soap and water *will prevent*, or a little blue ointment *will cure*, any case where there is "red perspiration of the axillæ."

W. A. Dayton, M.D.

123 W. 125th Street.

CONCERNING MEDICAL LEGISLATION.

To the Editor of The Medical Record.

Sir:—The April number of the *Archives of Comparative Medicine and Surgery* contains an editorial criticism on a bill now before the legislature, entitled "An Act to Regulate the Practice of Veterinary Medicine and Surgery in this State," and the writer pungently states the results of such legislation upon the medical profession in this city. He characterizes all such enactments as worse than failures, and, of course, predicts that the same consequences will be entailed upon veterinary medicine by legislative interference.

Such a criticism, if true, certainly reflects discredit upon our profession, which has been the author and promoter of all medical legislation in the State.

After declaring that legislation has driven the practitioners of almost every form of quackery to thoroughly organize for self-defence, the writer proceeds as follows: "The New York County Medical Society practically bears witness to this, as it has recently been obliged to admit to membership persons coming from irregular schools, which have been outgrowths from these organized bodies of quacks. This humiliation has been clearly effected by the stringent legislation referred to."

Such a public statement as the above should be sufficient to excite the earnest consideration of those who regard the welfare of the County Medical Society and the profession. It is said that many other graduates of irregular schools are about to claim admission *under the law*, and one is to be elected or rejected at the next stated meeting of the Society. Either we are bound to admit them, or the Comitia Minora has been the victim of unsound legal advice on the subject. It seems more reasonable to believe the latter, for it is very improbable that the legislature would pass a law depriving a chartered society of its inherent right to be the judge of the qualifications of its own members.

Every medical graduate may join the county medical society of *his own kind:* the regular may join the regular society; the graduate of homœopathy the homœopathic society; and the eclectic become a member of their county society; and that is so clearly the intent of the law, that no legal advice to the contrary should influence the Comitia Minora for a moment.

It is high time the entire Society should awake to the importance of this question, and promptly vote against the admission of such discordant elements, which must ultimately destroy its usefulness.

From my knowledge of the gentlemen composing the Comitia Minora, I do not believe they would feel aggrieved by such a solution of this question.

COUNTY MEDICAL.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from May 9 to May 15, 1880.

KING, WM. S., Lieut.-Col. and Surgeon. His leave of absence on account of sickness still farther extended six months. S. O. 101, A. G. O., May 7, 1880.

WOODWARD, J. J., Major and Surgeon. To proceed to Europe under special instructions to be communicated by the Surgeon-General of the Army. After completion of the duties assigned him, to return to his station in Washington, D. C. S. O. 105, A. G. O., May 12, 1880.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 15, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
May 8, 1880.	0	11	41	9	76	33	0	0
May 15, 1880.	0	10	42	5	118	47	1	0

THE CARE OF SMALL-POX IN CHICAGO.—The city of Chicago provides no place for its sick with epidemic diseases, except cases of small-pox. Within a week two cases of measles, turned out of their boarding-places and unable to gain admission into any hospital, have been in danger of death from starvation and exposure upon the streets. One case, a man, was found by a policeman on the sidewalk; the other was a woman, with a nursing baby in her arms.

Both patients were taken into the office of Commissioner of Health Dr. Wolfe, and generously fed and nursed at his personal expense.

It is the intention of the Health Department to prosecute the man who turned the woman into the street, as this is an offence under a city ordinance, punishable with a fine not to exceed $100, and imprisonment in the House of Correction not to exceed sixty days.

DEATH FROM CHLOROFORM. Within a few weeks, two deaths from the use of chloroform, used for anæsthetic purposes, have occurred in Chicago.

One was a young man, undergoing an exploratory operation for necrosis, at the Eclectic Medical College. Only a little chloroform was used, and it was used with caution. No heart disease was found post-mortem, but the brain was thought to be softer than natural, but, of course, was not in the condition of mallitus cerebri proper, as no symptoms of cerebral disease had preceded.

The other case was a weakly man, under middle age, with organic heart disease, who had been an invalid for several years. He received a crushing injury of the hand (thumb), and was taken by a friend to a drug-store kept by a physician, to have it dressed. Amputation being necessary, ether was first tried, but anæsthesia not being promptly induced, chloroform was substituted. After a few inspirations the patient died. The quantity of chloroform used was small. The heart was found fatty, as well as to have valvular disease.

PROF. LEWIS A. SAYRE, M.D., has been elected a corresponding member of the Edinburgh Medico-chirurgical Society.

ERRATA.—In Dr. Poole's article, p. 513, third line of second paragraph, the words "tonic or chronic" should read "tonic or clonic"; and in the eighth line of the same paragraph, the word "contracted" should be "controlled," the line being, "the muscle is still controlled by the spinal nerves," etc.

CREMATION AND FULL GRAVEYARDS.—On the night of May 12th the body of Gustave Poetz was cremated at Washington, Pa. The body was reduced to ashes in three hours.

Apropos to this event come a number of newspaper stories concerning the overcrowded condition of many graveyards, The London *Times* recently declared that for 300 years English graveyards had been so full that, like the one in Hamlet, Yorick's bones have had to be dug out in order to put Ophelia's in. A London florist purchased two cart-loads of mould a short time ago, and found it full of legs, arms, skulls, etc.; he brought suit against the person who supplied him for misrepresenting his goods.

In this country, two cemeteries—one in New England, the other in Pennsylvania—recently caved in, and the thickly crowded bones of many generations were exposed to sight. Facts like these go a good way to endorse the practice of cremation.

THE STATE BOARD OF HEALTH OF MARYLAND has been organized under the law recently passed. The Board consists of three physicians, Drs. E. L. Howard, C. W. Chancellor, and J. R. Ward; J. C. Neilson, civil engineer; C. J. McGwinn, attorney; and J. A. Stewart, health commissioner of Baltimore. Dr. Chancellor will probably be elected secretary, and another member be added to the Board.

THE THIRTY-FOURTH ANNUAL MEETING OF THE ASSOCIATION OF MEDICAL SUPERINTENDENTS OF American Institutions for the Insane will be held at the Continental Hotel, Philadelphia, at 10 A.M., Tuesday, May 25, 1880.

THE N. Y. STATE DENTAL SOCIETY held its annual session at Albany, May 13th and 14th. Dr. C. E. Francis presided. About 100 members were present. Four, out of ten applicants, received the degree of M.D.S.

PRODUCTION OF SEX AT WILL.—Mr Liquet, a cattle-breeder of Texas, claims to have discovered a way by which either sex can be produced at will. His theory is that when the female at time of coition is comparatively cold, and the male very passionate, a female will be the result; a reversal of the conditions will produce a male. Mr Liquet secures the proper conditions by feeding the bull, for example, on rich food previous to the coition; the cows at the same time being kept on low diet, and submitted to the gallantry of a castrated bull, until the excess of their passion has worked itself off. In all the experiments, numbering fifteen or twenty, so far tried, he has been successful in predicting the sex.—*Bost. Med. and Surg. Journ.*

HYOSCYAMIA IN INSANITY.—In the *American Journal of Insanity* for April, Dr John P. Gray gives the result of his experience with hyoscyamia. He uses one-sixth of a gr of the dark preparation of Merck, or one-twelfth of a gr of the white crystals. In acute mania, and melancholia with frenzy, no remedy acts so well in calming the high nervous and muscular excitement. In certain similar cases in which the patients refuse to eat, the remedy has acted admirably. As a sleep inducing remedy, in cases of furious insanity, hyoscyamia will often succeed when other remedies fail. In high excitement associated with plethora and in epileptic mania, the bromide may be combined with it. The drug is beneficial in hysteria and chorea, but not in chronic insanity with quiet delusions. The alkaloid is better than the other preparations.

THE LOUISIANA STATE MEDICAL SOCIETY held its annual session at New Orleans, March 31st. A larger number of members than usual was present, and the meeting was in every way successful. The annual address was delivered by the President, Dr. J. W. Dupree; the annual oration by the Rev. H. M. Thompson, D.D. Seventeen new members were admitted to the Society. The Society declined to appoint a committee to confer with other committees for the purpose of making arrangements for the next meeting of the American Public Health Association.

A resolution was passed endorsing a petition for a law regulating the practice of medicine, and urging the greater consideration by and greater union of the profession in regard to the securing such a law.

Dr. G. M. Stirnberg, U.S.A., read a paper on microscopy, in which he gave some of the results of his investigations in Havana last summer.

Dr. L. F. Salomon reported ten additional cases of leprosy in the State.

Papers were read on "Morbus Coxarius at the International Medical Congress, Philadelphia," on "Incised Wound of the Stomach," "Medical Hydrology," "Hydrophobia in Louisiana."

The Hon. Thos. J. Semmes was elected honorary member and annual orator for 1881.

The following officers were elected for the ensuing year: President, Dr. C. M. Smith; Vice-Presidents, Drs. D. R. Fox, J. P. Davidson, P. S. Postell, A. A. Lyon, G. M. Brumby, and O. P. Langworthy; Recording Secretary, Dr. L. T. Salomon.

The Society adjourned, to meet in New Orleans on the last Wednesday in March, 1881.

SURGEON JOHN F. RANDOLPH, U.S.A., died at his residence, in Philadelphia, May 14th, at the age of fifty-three. Dr. Randolph joined the army in 1855. He gained much distinction in the expedition against the Indians in Washington Territory in 1858. At the time of his death he was full major.

THE TENNESSEE STATE MEDICAL SOCIETY held its forty-seventh annual session at Knoxville, April 6, 7, and 8, 1880. About forty members were present. Dr J. H. Carriger delivered the opening address of welcome. The annual address was delivered by the retiring President, Dr L. M. Wight. An interesting letter was received from the venerable Dr J. G. M. Ramsey. Dr. R. is in his eighty-fourth year, and has practised medicine for sixty years.

A committee of five was appointed to memorialize the next legislature to pass laws regulating the practice of medicine in the State of Tennessee.

Certain charges preferred against the President by the Shelby County Medical Society for alleged unprofessional conduct in some of his rulings were investigated, and Dr. Wight was exonerated from any intentional misdeed.

A somewhat novel departure was the appointment of a committee of three to write up sanitary medicine in the public press. About twenty members were added to the Society's roll.

Papers were read by Dr. W. P. Jones on Insanity; by Dr D. J. Roberts on Cholera Infantum; by Dr. W. R. Sevier on Toxæmic Disease; by Dr. Van S. Lindsley on Hypermetropia. Numerous other papers were read, there being fourteen or fifteen in all.

The following officers were elected for the ensuing year: President, Dr. R. B. Lenoir, of Lenoir's; Vice Presidents, Drs. Alexander W. M. Clarke, T. J. Tyner; Corresponding Secretary, Dr. T. A. Ramsey, of Knox; Recording Secretary, Dr. Morrison; Treasurer, Dr. J. D. Plunket.

The Society adjourned to meet at Nashville on the first Tuesday in April, 1881.

A NEW REMEDY FOR HYDROPHOBIA AND LEPROSY.—A pamphlet has been recently published by the Director of the French Foreign Missions Seminary, entitled *Le Hoang-Nan, Remède Tonquinois contre la Rage, la Lèpre et autres Maladies*. It describes the properties of a yellow powder made from the bark of the hoàng-nàn, a vine growing in Cochin China. There are a large number of medical reports from the various hospitals and dispensaries of the missions, showing that the drug is invaluable in leprosy and snake-bites. The evidence of its efficacy in hydrophobia is not so positive.

THE RIGHT OF PROPERTY IN THE BODIES OF THE DEAD.—A suit was recently tried in the Superior Court of Cincinnati, which brought up a question never before decided. One Mrs. Ann Farley claimed to recover $5,000 from Dr. Wm. Carson, one of the medical staff of the Cincinnati Hospital, for operating with a dissecting-knife upon the corpse of her husband, without her consent, or that of her children. The man was a charity patient who had died from hepatic abscess. It was claimed by the defence that the body was not cut for dissecting purposes, nor for the purpose of post-mortem examination, but to relieve it of a large accumulation of pus.

The judge, in passing on a motion to arrest the case, said that the question was simply this: Has a widow such a right in the body of her deceased husband that she may have action for damages against any one who injures the body? Neither counsel nor judge were able to find any authorities or precedents directly on this point. In all previous cases, it was conceded that the relatives had a right of property in the garments and ornaments of the dead, but not in the body. That was the common law. In the present case there was no actual damage, or, at least,

the only damage was to the feelings of the plaintiff. But the court knew of no case in which action was permitted on account of injury to the feelings. As there was, therefore, no right of property and no actual damage to the plaintiff, the case was dismissed.

Medical Education of Homœopaths.—The following illustration of the homœopathic method of teaching is taken *verbatim* from the papers of a recent examination of the students of a western homœopathic medical college:

"Tuberculosis it is a disses of malnution tow varito the yelow and gray. Natur is ente and chronic the sines is dulness on percution. Rem mureatimonia Phos."

This is one specimen out of half a dozen equally bad. They form the text of an appeal for higher education in homœopathic colleges.

The Cincinnati Board of Health has been reorganized. The position of Health Officer was tendered to Dr. T. C. Minor, who declined a reappointment. Dr. A. J. Miles was then elected to the position.

Bad Characters in Medical Schools.—In a letter from Mr. Arthur Gamgee, Dean of the Owens Medical College, to Dr. Acland, he states that at the last session the college expelled a student because he had been convicted of a felony. At present they were about to expel another student, who had been convicted "of the abominable offence of indecently exposing his person." The Dean is anxious to secure some arrangement by which those who have thus been expelled from one school shall be prohibited from entering any other. Such an arrangement must be desirable, since it is at present impossible to prevent a felon from becoming a physician, although, if a physician becomes a felon, his status as a medical man can be taken away. The cases cited to illustrate the necessity of this movement do not speak well for the character of the English student—at Owens college, at least.

American Medical Association.—The thirty-first annual session will be held in New York on Tuesday, Wednesday, Thursday, and Friday, June 1, 2, 3, and 4, 1880. The following are the chairmen and secretaries of Sections:—Practice of Medicine, Materia Medica, and Physiology: Dr. J. S. Lynch, Baltimore, Md., *Chairman;* Dr. W. C. Glasgow, St. Louis, Mo., *Secretary.* Obstetrics and Diseases of Women and Children: Dr. Albert H. Smith, Philadelphia, Pa., *Chairman;* Dr. Robert Battey, Rome, Ga., *Secretary.* Surgery and Anatomy: Dr. W. T. Briggs, Nashville, Tenn., *Chairman;* Dr. C. Powell Adams, Hastings, Minn., *Secretary.* Medical Jurisprudence, Chemistry, Psychology, State Medicine, and Public Hygiene: Dr. Jas. F. Hibberd, Richmond, Ind., *Chairman;* Dr. Thos. F. Wood, Wilmington, N. C. *Secretary.* Ophthalmology, Otology, and Laryngology: Dr. Bolling A. Pope, New Orleans, La., *Chairman;* Dr. Eugene Smith, Detroit, Mich., *Secretary.* The following Committees are expected to report:—On Prize Essays: Dr. Austin Flint, New York, *Chairman;* On Necrology: Dr. J. M. Toner, Washington, D. C., *Chairman:* On Catalogue of National Library: Dr. H. C. Wood, Philadelphia, *Chairman;* On Ozone: Dr. N. S. Davis, Chicago, Ill., *Chairman;* On the Metric System: Dr. T. Parvin, Indianapolis, Ind., *Chairman;* On State Medical Societies: Dr. S. D. Gross, Philadelphia, *Chairman.* The following proposed amendments of the constitution will come up for action: Article II., second paragraph, after "Army and Navy" insert "and the Marine Hospital Service of the United States." Article II., fourth paragraph, at the end insert "the Marine Hospital Service of the United States shall be entitled to one delegate." The following proposed amendments of the by-laws will be acted upon: 1. Expunge from Section III. everything relating to prize essays and the committee on prize essays. 2. Introduce into Section II. the following laws: *Prize Essays. a.* There shall be four annual prizes of two hundred and fifty dollars each, which shall be awarded at the close of the second year after announcement, as hereinafter explained, for strictly original contributions to medical and surgical progress. *b.* It shall be the duty of the chairman of each of the following four Sections—1. Practical Medicine, Materia Medica, and Physiology; 2. Obstetrics and Diseases of Women and Children; 3. Surgery and Anatomy; 4. State Medicine and Public Hygiene—to appoint annually before the adjournment of the meeting of the Association three members of ability and good judgment, who shall constitute a committee of selection, and who shall, within thirty days thereafter, select and publicly announce for competitive investigation and report a subject belonging to one or other of the branches of medicine included in the title of the section. *c.* It shall also be the duty of the chairman of each of the sections mentioned to appoint annually a committee of award, consisting of three experts, who shall carefully examine the essays offered for competition, and, if any one shall be found worthy of the prize as a substantial contribution to medical knowledge, to recommend the same to the Association. *d.* All essays placed by their authors for competition should be in the hands of the chairmen of the respective committees of award on or before the first day of January preceding the meeting of the Association at which the reports of the committees are required to be made. *e.* All prize essays shall be considered as the property of the Association. *f.* The names of the authors of the competing essays shall be kept secret from the committees by such means as the latter may provide. *g.* Membership in either of the two committees shall not debar from membership in the other; nor shall membership in the Committee of Selection exclude a member from the privilege of offering a competing essay.

So far as can be determined at present date, the proceedings of the American Medical Association will take place as follows: The meetings will be held in the hall and other rooms of the Young Men's Christian Association, at the corner of Twenty-third street and Fourth avenue, and in the amphitheatre of the College of Physicians and Surgeons, which is near the Association building. The general meetings will be held in the Association Hall, whose floor will be given to delegates and the galleries to spectators. The various sections will meet in adjoining rooms of the building, except the Surgical Section and that on State Medicine, which will meet in the College of Physicians and Surgeons.

The work of the session will be done in a general meeting, which will begin each morning at 10 A.M., and in special sections, which will meet in the afternoons at 2 o'clock.

It is impossible to say now on what day particular papers can be heard. At some time, however, during the four days, the following papers will be read:

In the Section on Practice of Medicine, papers on The Classification of Medicines, by Dr. William H. Thomson; on Progressive Muscular Atrophy and

Pseudo-Hypertrophy, by Dr J. D. Kerlin and Dr. Chas. K. Mills, of Philadelphia; on Microscopic Sections from Cases of Diseases of the Brain and Spinal Cord, by Drs. Chas. K. Mills and Carl Seiler, Philadelphia, Pa., on the Use of Sulphur and its Compounds in the Treatment of Diseases of the Skin, by Dr. L. Duncan Bulkley, New York; on the Diphtheritic Poison, by Dr. J. T. Everett, Sterling, Ill.; Artificial Inflation as a Remedial Agent in Diseases of the Lungs, by Dr. W. T. Gadbury, Yazoo City, Miss. (read by Dr. J. Solis Cohen); The Electrical Treatment of Exophthalmic Goitre, by Dr. A. D. Rockwell, New York; A Case of Recovery from Occlusion of One or More of the Cerebral Sinuses, by Dr M. O'Hara, Philadelphia, Pa.; The Therapeutics of the Natural Mineral Waters, by Dr W. C. Van Bibber, of Baltimore; on the Strong Galvanic Current in the Treatment of Sciatica, by Dr. V. P. Gibney, New York; on Epilepsy, by Dr Leonard W. Pitkin, New York.

In the Section on Surgery, there will be papers on Spinal Extension, its Modes, Means, and Motives, by Dr. Benj. Lee, Philadelphia, Pa.; on Phymosis, as a Cause of Nervous Symptoms, with Results of Operations, by Dr. George M. Beard, New York; on Laparotomy and Colotomy, with Formation of Artificial Anus, for Obstruction of the Intestines, by Dr. W. A. Byrd, Quincy, Ill.; A New Inhaler, by Dr. D. M. Barr, Philadelphia, Pa.; Thoracentesis, by Dr. C. A. Lee, New York; Cystotomy for Cystitis of the Male, by Dr. Robert F. Weir, New York; on Hip-joint Disease, First Stage, with Microscopic Sections, by Dr. De Forest Willard, Philadelphia, Pa.; Reparative Processes of Osseous Tissue, Illustrated by Microphotography, by Dr. H. D. Marcy, of Cambridge, Mass.; a New Method of Treating Spinal Disease, by Dr. E. H. Coover, of Harrisburg, Pa.; on Some Points in the Treatment of Hemorrhoids, by Dr. W. D. Blackwood; on the Treatment of Fractures of the Long Bones, Involving Joints, by Dr. Jas. S. Green, of Elizabeth, N. J.; on the Foramina of Monroe, in Man and the Domestic Cat, by Dr. Burt G. Wilder, Ithaca, N. Y.; on Newly Devised Orthopedic Appliances, including the Seaton Splint, by Dr. C. F. Stillman, Plainfield, N. J.; on Compound Complicated Hare-Lip, by Dr. Jas. L. Little, New York; on Lupus, illustrated with magic lantern, by Dr. H. G. Pitard, New York.

In the Section on Obstetrics, there will be papers by Dr. J. Marion Sims, on Battey's Operation in Epileptiform Affections; by Dr. Montrose A. Pallen, on the True Import of Oöphorictomy for Reflex Symptoms, more particularly in Epilepsy and Catalepsy; by Dr. T. Gaillard Thomas, on Ablation of the Uterus; by Dr. Wm. M. Polk, on the So-called Malaria of Puerperal Fever.

In the Section on Ophthalmology, Otology, and Laryngology, papers by Dr. W. H. Daly, Pittsburg, Pa., on Stenosis of the Larynx; by Dr. Carl Seiler, of Philadelphia, on Lesions of the Larynx in Pulmonary Phthisis; by Dr. F. H. Bosworth, New York, on Bilateral Paralysis of the Abductors of the Larynx; by Dr. D. H. Goodwillie, on the Surgical Treatment of Naso-Pharyngeal Catarrh; by Dr. W. H. Daly, on the Therapeutic Value of the Galvano-Cautery in Diseases and Growths of the Naso-Pharynx.

In the Section of State Medicine, papers will be read on the Death-Rate among the Rich and Poor, by Dr. Drysdale, London; on Hygiene and Fevers, by Dr. Jos. J. Jones, of New Orleans; on the Psycho-Physiological Training of Idiotic Eyes, by Dr. E. Seguin.

The evenings will be occupied by social entertainments, as follows. Tuesday evening a grand reception will be given to the Association by the profession of New York, in the Academy of Music. The parquet will be floored over, as is usual in such entertainments. Music will be furnished by the Seventh Regiment band, and a supper, of which Delmonico is to be caterer, will be served in Nilsson Hall adjoining.

On Wednesday evening a complimentary theatrical entertainment will be given in Booth's Theatre; Mr. Booth will act "Iago," in Othello.

On Thursday evening, receptions will be given by Drs. Fordyce Barker and T. Gaillard Thomas, in the Academy of Medicine, also receptions by Mayor Cooper and by Mr. August Belmont, at their respective residences.

On Friday, at 1 P.M., after the final adjournment of the Association, a grand steamboat excursion will be given by William Wood & Co., Medical Publishers, New York. The steamboat "Grand Republic" will start from the foot of West 24th street, and take the following route: up the Hudson River to Yonkers, affording a view of the Palisades, thence returning, will pass around the southern portion of Manhattan Island, up the East River, around Blackwell's Island, and thence through the bay to the ocean and landing on the New Iron Pier at Coney Island, where a luncheon will be served. Music will be furnished by Gilmore's band.

During the sessions of the Association there will be displays of drugs, chemicals, surgical instruments and appliances, medical wares, &c., in the stores on Fourth Ave. under the Coll. of P. and S. It is requested that all persons wishing to make any exhibit apply at once to the Chairman of the Committee of Arrangements, Dr. Montrose A. Pallen, No. 18 East 29th street, New York City.

Books Received.

Students' Aid Series—Chemistry. Parts I., II., III. Therapeutics and Materia Medica. Therapeutics and Materia Medica, Part II. By C. E. A. Semple, New York. Physiology. By B. T. Lowne, F.R.C.S., England. New York: G. P. Putnam's Sons. 1880.

The Throat and its Functions. By Louis Elsberg, A.M., M.D. New York: G. P. Putnam's Sons. 1880.

Diagnosis and Treatment of Obstetric Cases. By Paul F. Munde, M.D. New York: W. Wood & Co. 1880.

Ocular Therapeutics. By L. De Wecker. Translated and edited by Litton Forbes, M.A., M.D., etc. New York: W. Wood & Co. London: Smith, Elder & Co. 1880.

Homeopathy: What is It? By A. B. Palmer, A.M., M.D. Detroit: Geo. S. Davis. 1880.

Bible Hygiene, or Health Hints. By A Physician. Philadelphia: Presley Blakiston. 1880.

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Original Lectures.

THE PULSE.

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GENTLEMEN—We begin to-day with the study of the pulse. The word pulse is derived from the Latin *pulso*, I strike, and expresses the striking or lifting of the finger by the distending vessel, as, with each contraction of the heart, blood is forced into the vessels. The significance of the word has also been extended, so as to be applied to the appearance of a lifting up of the coverings over a distending vessel, so that the word *pulse* is applied not only to that which is felt, but to that which is seen.

There are two kinds of pulse—the arterial and the venous. The arterial is appreciated mainly by palpation, the venous by inspection. We have to study especially the arterial pulse.

In the writings of the old school of physicians, even to the days of Hippocrates, the pulse was regarded as one of the most important symptoms, and although some of the distinctions that these observers made were too fine and subtle to be really appreciated at the bedside, there can be no doubt that their observations of the changes in the pulse were often extremely acute and accurate. So accurate, indeed, that Dr. Broadbent, referring to these observations, says: *"It was with astonishment that I learnt when I first took up the study, that every single element of the pulse revealed to us by the sphygmograph had been previously recognized by the old school of physicians, and that a nomenclature existed ready made for all of its teachings."

The radial pulse is the one usually selected, since it answers all of the requirements. It is of moderate size, is superficial and can be readily compressed against the radius. The pulse in vessels elsewhere must sometimes of necessity be observed, as in the brachial, the facial in front of the masseter muscle, the temporal, posterior tibial, dorsalis pedis, the carotid and femoral arteries.

When the pulse is to be taken, the patient should be either sitting or lying down. The observer should place his index, middle, and ring fingers lightly upon the pulse, and should then appreciate the state of the coats of the artery and should next note the frequency, the rhythm, the tension, volume and force of the pulse, and lastly, any peculiarities if present. Moreover, the pulse of one side of the body should always be compared with the other. It should also be remembered that forcible extension or flexion of the forearm will sometimes arrest the radial pulse. In taking the pulse in children and infants, it is well to count the pulse, if possible, while they are asleep. This can often be done nicely in the temporal artery. In taking the pulse at the wrist, asleep or awake, there are often involuntary movements of the arm and twitchings of the muscles, which render it difficult to keep the finger of the observer on the pulse. The difficulty may be overcome in a great degree by grasping the entire hand of the child and then extending the index finger upon the pulse.

* Lancet, vol. ii., 1875, p. 441.

It is also advisable not to take the pulse of the patient until some little time has elapsed after the appearance of the physician.

The factors of the pulse and the several phenomena dependent upon them, are shown in the following table:

1. Heart.	*a.* Rate or frequency.	
	b. Rhythm—intermittency and irregularity.	
	c. Force or strength.	
	d. Quantity of the blood.	
2. Degree of resistance to the passage of blood through small arteries and capillaries.	*a.* Degree of tension.	Hard or long. / Soft or short.
	b. Size of vessels.	Large. / Small.
3. Elasticity of vessels.	*a.* Dicrotism, hyperdicrotism.	
	b. Non-dicrotism (senile pulse).	

In health, changes in the frequency and rhythm of the pulse are often met with.

I subjoin a table of the variations in the frequency of the pulse in health which is taken from Hooper's "Physician's Vade-mecum," edited by Drs. Guy & Harley, and from this work is also taken most of what follows on the changes of the frequency of the pulse in health.

Infant asleep at birth	140
Infancy	120
Child five years of age	100
Youth	90
Male adults	72–80
Female adults	80–85
Old age	70

Heberden records 42, 30, and 26 beats to the minute, in an old man of eighty, apparently in perfect health; Fordyce, another of 26 (Hooper's "Vade-mecum," p. 179, London, 1869). Great frequency in health is not often met with, but I have under observation a case where the pulse ranges from 100 to 120, and the individual states that this frequency has existed all his life.

Sex has some influence. Up to seven years of age the frequency is about the same in both sexes, but later the female pulse is from 6 to 14 beats—average 9, greater than in the male.

Posture also affects the pulse. It is most frequent in the standing, and least in the recumbent position. The pulse of a man is twice as much affected by change in position as that of a woman. When the pulse is much increased in frequency, change in position has but little effect, and for the higher numbers entirely disappears. When the head is lower than the body the pulse falls (a hint for the treatment of some forms of palpation). The general law as to the degree of frequency of the pulse as affected by position is as follows—the frequency is directly proportioned to the amount of muscular effort required to support the body in different positions.

The pulse falls in sleep as much as ten beats. Sleeplessness increases its frequency. On awakening from sleep there is usually a decided increase in frequency.

Food increases the rate. Mental excitement and activity of the emotions increase the frequency; mental depression is often accompanied by a decrease. Cold lowers and heat raises the rate. Among other causes producing an increase in the frequency of the pulse in health may be mentioned spirituous and warm drinks, tobacco, diminished atmospheric pressure. Among the remaining causes producing diminished frequency there are fatigue, long-continued rest, debility without disease, and increased atmospheric pressure. Occasionally the pulse is

occasional in health, but when that is so it is usually congenital.

Intermittency is not infrequent in health, and it is then either congenital or, as Dr. B. W. Richardson* has shown, may be due to terror, anxiety, grief, passion, mental or physical fatigue, adverse fortune, and old age. The intermittency may be only temporary, or it may become permanent; and if it becomes very frequent, may be pathological.

I now ask your attention to the pulse in disease, and I shall consider the subject under the following heads:

1st.—The condition of the walls of the vessel the seat of pulsation.

2d.—Changes referable to the several factors of the pulse.

3d.—Names and significance of certain pulses.

1st.—The condition of the walls of the vessel the seat of the pulsation. In health, an artery of the size of the radial should not be felt in the interval of pulsation. When the artery can be easily appreciated in this interval, the coats of the vessel have undergone some pathological change, or else the vessel is over-distended with blood; the blood pressure is greatly increased. The artery sometimes feels like a rubber tube with thick walls, or a pipe with rigid walls, or, again, resembles a string of beads. It is often tortuous or serpentine, and may be traced up almost the entire forearm. These changes in the walls of the artery are the result of chronic inflammation with subsequent degeneration—deposition of calcareous matter. Usually these changes are widely distributed in the arteries throughout the body. The temporal arteries especially are tortuous and serpentine, and sometimes the ophthalmoscope reveals thickening of the arteries at the fundus oculi. Changes in the coats of the arteries are observed in cases of Bright's disease, in the rheumatic and gouty, in the syphilitic, and sometimes in athletes as the result of overstrain, and in lead-poisoning and scurvy. Excessive use of tobacco and alcohol occasion these changes. Certain infectious diseases besides syphilis seem also to excite pathological alterations in the walls of the vessels, as for example, diphtheria and typhus fever. Exposure to cold and heat, want of food, or good air, also, may produce these changes; and, lastly, they may appear as among the earliest of the degenerations incident to senility.

It is important to appreciate the abnormal conditions of the walls of the artery in the following: in the diagnosis and prognosis of cerebral hemorrhage and thrombosis; in the prognosis, diagnosis, and treatment of changes in the aortic valves of the heart; and in the prognosis and just estimation of many diseases when found associated with this sign of beginning degeneration, and which may be the only positive sign of beginning decay.

I have already alluded to the fact that in pulse of high tension the vessel may be felt in the interval of pulsation, and one may be so deceived as to mistake such a condition of things for a vessel with diseased walls, whereas the artery is over-distended with blood and the walls may be normal. This is not so infrequently met with, and very often we find that disease of the walls eventually does supervene, apparently by reason of this condition of high tension. It may be necessary sometimes to differentiate these conditions, and Dr. Broadbent, in his interesting and valuable lectures on the pulse in the *Lancet*, 1875, to which I shall often refer, has demonstrated how perfectly this can be done by having the patient inhale some nitrite of amyl. If the pulse be one of high tension only, the thick cord-like vessel disappears in the interval of pulsation, and is only felt during pulsation, and is then very soft. If the walls of the artery are actually thickened or diseased, very little change takes place. But, as I have said, you may find both combined, and the difference is in the change in the compressibility of the pulse.

2d.—The phenomena referable to various factors of the pulse.

The Heart.—Increased and diminished frequency of the pulse.

a. Increased frequency.

I ask your attention to the following schemes of the causes of increased frequency of the heart as determined by experiment on animals. It is taken from Lauder Brunton's book on the "Experimental Investigation of the Action of Medicines," Part I., Circulation, London, 1875. I do this so that you may, if possible, explain to yourselves the probable cause of a frequent pulse in many conditions. I should be overstepping my limits of time were I to attempt it.

Paralysis of vagus roots or vagus fibres
" " " ends in the heart.
Stimulation of the cardiac sympathetic } by lowered blood pressure
Stimulation of the cardiac ganglia } by increased temperature of the body.

A pulse of 90 or more may be regarded as a pulse of abnormal frequency in an adult. There are exceptions to this, but they are rare.

In the following pathological conditions a frequent pulse is of importance in diagnosis or prognosis.

1. Fevers.—"In fevers the pulse is generally quickened in proportion to the elevation of temperature, though the proportion between the pulse and the temperature varies in different fevers. In scarlet fever the pulse is quicker than in typhoid fever with the same temperature, hence a quick pulse is of less serious import in scarlet than in typhoid fever. The same elevation of temperature quickens the pulse relatively much more in children than in adults."

"If a pulse is quicker than the temperature will explain, it indicates cardiac weakness—the weakness being proportionate to the want of ratio between the temperature and the pulse. In this way the pulse affords important information in prognosis and treatment."

"A pulse that day by day progressively increases in frequency, the temperature remaining the same, shows increasing cardiac weakness."

"In all febrile diseases a pulse in adults over 120 is serious and indicates cardiac weakness. A pulse of 130 or 140 indicates great danger, and with a pulse at 160 the patient almost always dies."*

a. In eruptive fevers, just before the appearance of the eruption, the pulse becomes sometimes very frequent.

b. In relapsing fever, during the febrile periods, the pulse is of very great frequency and is often 130 to 140. It attains a greater degree of frequency than in any other fever, without being of grave significance (Murchison).†

c. In typhoid fever the prognosis is usually bad when pulse persistently exceeds 120 (Murchison).†

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* Discourses on Practical Medicine: On Intermittent Pulse and Palpitation. London, 1871.

* A Hand-book of Therapeutics, by Sidney Ringer, M.D. William Wood & Co., New York, 1879. pp. 7 and 8.

† A Treatise on Continued Fevers, by Charles Murchison, M.D. London, 1873.

d. In the convalescence from all fevers the range of increase in the frequency of the pulse in changing from a recumbent to a sitting or standing position, or the range of decrease in its rate in changing from a standing or sitting to a recumbent position, is a measure of the debility of the patient. During the pyretic period such changes in position have little or no effect. The rate of the pulse may therefore be of importance in gauging the strength of the patient.

2. Inflammations:

a. The occurrence of a sustained frequency of the pulse after confinement is a very suspicious symptom, and may betoken advent of puerperal peritonitis.*

b. Diseases of the lungs and pleura.

1. Under the age of fifteen any disease of the lungs is almost invariably accompanied by great frequency of the pulse, so that a pulse of 120 to 140 would not be considered as so serious in significance as if it occurred in an older person.

2. When a frequent pulse is present in pneumonia it is always of bad significance, even if only a small portion of the lung is involved. Moreover, when a pneumonia occurs in the cachectic or debilitated, the pulse is especially apt to be frequent, often 120 to 160, and such cases usually die.

3. When complicated with heart disease, the frequency of the pulse is significant. Traube asserts, when in a strong robust person you find a pneumonia with a pulse of 120, you may be sure that there is present some form of heart disease.†

c. In the diagnosis of incipient phthisis a sustained frequency of pulse is thought to be of importance by Sir Thomas Watson, and others.

d. In pleuritic effusions the pulse may be very frequent, especially when there is displacement of the heart.

e. In pericarditis and myocarditis very great frequency of the pulse is observed at times—especially on any movement by the patient—130 to 160. The change in rate may be very sudden and is of some importance in diagnosis and prognosis.

f. In acute articular rheumatism unaccompanied by peri-, endo- or myocarditis, a pulse of 120 or more indicates great danger (Ringer).

g. In the last stages of meningitis of the convexity, and particularly in tubercular meningitis, a very frequent pulse is often observed.

3. Diseases of the nervous system:

a. In diseases affecting the medulla oblongata—in glosso-labio-laryngeal paralysis the pulse is quite frequent.

b. In the early stage of locomotor ataxia a frequent pulse is a quite constant symptom.

c. In Basedow's disease a pulse of 120 to 140, and even of 200, is often observed at times.

d. In hysteria an exceedingly frequent pulse is not uncommon, 130 to 160 and more.

e. In puerperal mania, Sir James Y. Simpson insists upon the very great importance of the frequency of the pulse in prognosis, and he states that where the pulse is 110 or over, the outlook is very bad, and that in his experience no case had ever recovered.

f. In certain cases of peripheral irritation a very great increase in the rate of the pulse has been observed:

1. Where tumors in the neck have pressed upon the pneumogastric or sympathetic nerves.

2. In cases with intra-thoracic tumors.

3. Where there has been some inflammatory process in the sheaths of the pneumogastric or sympathetic nerves.

4. In cases of irritation of nerves in the abdominal cavity as by over-distention of the intestines by gas; in the passage of hepatic and renal calculi; worms in the intestines, etc. As showing the very great disturbance of the pulse, which may be occasioned by the presence of entozoa in the intestines, a case was reported in the *British Medical Journal*, June, 1867, in which attacks of palpitation of the heart with a pulse of 240 were observed, and after the expulsion of a tænia from the intestines the attacks entirely disappeared.

g. In nervous exhaustion the result of venereal excesses, of over-indulgence in alcohol, coffee, or tobacco, or from excessive mental or physical labor, or as the result of previous disease, a very frequent pulse is often observed, and this may, when very frequent, have an alarming significance. Dr. Latham, in the new Sydenham edition of his works, vol. ii., p. 538, describes most eloquently the significance of the very frequent pulse. Likening the heart to the finger of the clock, he says: "We have already seen in these two cases the index hurrying rapidly round the dial-plate, and telling that, from some cause or other, the mechanism within was running down, and if it were not arrested that it would quickly stop. Even prior to any outward presentments to give assurance of disease, even earlier than its known beginning, we have seen countless fluttering of the heart and arteries give token of the nervous system already under trial of mortal suffering, and ready to let life go for ever."

The slow pulse will be our next subject.

* Pulse in Forming Stage of Puerperal Peritonitis. Archives of Practical Medicine, No. 3. Mary Putnam-Jacobi, M.D. New York, 1873.

† Die Symptome der krankheiten des Respirations- und Circulations Apparats. Traube. Berlin, 1867, p. 31.

TRAUMATIC ABSCESS OF THE LIVER.

A Clinical Lecture, Delivered at the Good Samaritan Hospital, Cincinnati,

By Prof. JAS. T. WHITTAKER, M.D.

Gentlemen:—We do not often have the opportunity to see a traumatic abscess of the liver. So far as I remember, this is the first case I have ever been able to present to a class. Indeed, so rare are these cases that I was unwilling to admit that the liver was implicated here until I was assured by the house physician—an assurance which I made doubly sure myself—that the discharge from the wound examined under the microscope showed the presence of liver-cells. If you look at the statistics as to the frequency of this origin of hepatic abscess, you will find it to be very rare indeed. Thus, Budd says: "A blow or other mechanical injury is by no means a frequent, though the most obvious cause, of abscess of the liver." In the sixty cases to which he makes reference, "there is only one—a case recorded by Andral—in which the disease was clearly traced to a blow. In this case there were two large abscesses on the convex surface of the right lobe—the usual seat, probably, of abscesses produced in this way." Budd says further that the rarity of inflammation and abscess from accidental injury shows how effectually the liver, when of its natural size, is shielded by the ribs.

Frerichs states also that "cases are rare where the disease is induced by an external injury, such as a wound." Medical literature contains, he continues, but a single observation of traumatic pylephlebitis, which is recorded by Lambron, *Arch. gèn. de méd.*,

1842, p. 124. The author quotes this case and the report of the autopsy of it in full in his work on Diseases of the Liver. And Murchison evidently considers trauma to be so little productive of abscess that, in his work on Diseases of the Liver, he does not mention it at all. I need hardly say that I refer here to direct trauma of the liver. Everybody knows that among the most frequent causes of pyæmic abscesses of the liver are traumata of distant parts, as, for instance, of the skull. In these cases the abscesses are, of course, metastatic in the true sense of the term.

Laboring-men frequently suffer contusions of other organs, but cases of inflammation of the liver from contusions are among the curiosities of clinical experience. What is the proof here that we have to deal with an abscess of the liver? There is nothing in the character of the external wound that would indicate the extent of the lesion. It is, as you see, a large, irregular trauma, freely covered with pus. But when the discharge is examined microscopically it is found to contain pigment and liver-cells, and we have here the same proof of their origin that we get sometimes in the sputum when a hepatic abscess bursts into the lungs.

Ordinarily, as in this case, we are aided in the recognition of an abscess of the liver by the cachexia and general prostration. Here is profound cachexia and pallor, whence I suspect we have to deal not only with abscess of the liver, but also, as a result of the prolonged suppuration, with amyloid degeneration in addition. We have, however, no proof of this complication until we shall have examined the urine.

When we have a case of abscess of the liver we look for its cause. Usually it arises from an internal cause, from a thrombus or an embolus, from a dysentery, an ulcer, suppurating hemorrhoids, or, in the case of multiple (pyæmic) abscesses, from some distant trauma or other cause of blood-poisoning. But here is a case in which we do not have to invoke a distant cause. The cause is, as Budd has said, most obvious.

As usual in all cases of hepatic abscesses, the liver is enlarged. By palpation, I feel it extending down an inch or two below the level of the lowest ribs; while distinctly the upper border of dulness begins at the level of the second rib.

Is this a solitary abscess, or have we many? We would expect this abscess to be alone; yet we might have secondarily from this suppuration multiple abscesses throughout the liver. In other words, we may have here a single, like the tropical, abscess, and, dependent upon it, numerous or multiple pyæmic abscesses. We could only answer this question satisfactorily by making explorations with the needle of the aspirator—operations which are not justifiable so long as the vent is so copious as here.

Strange to say, an enormous abscess may exist in the liver, and the individual may yet recover completely on its evacuation. I have seen cases where the right lobe of the liver was hollowed out to almost a shell, judging from the amount of pus removed, and yet the patient made a perfect recovery. One wonders why such an amount of liver-tissue exists if the individual can be deprived of so much of it and survive. But the physiologists teach us every day how lavish nature is in the construction of the important internal organs, like the kidneys and the liver. Indeed, a man may have a large abscess in the liver and show no signs of it at all during life.

The treatment here does not resolve itself simply into relieving pain and sustaining strength. There is one other element, of the treatment of which we must speak. Amyloid degeneration, if it has not already, must inevitably finally ensue from this prolonged suppuration. Can we do anything to prevent it? It has been noticed, in a series of experiments in the treatment of tuberculosis by the benzoates of soda and magnesia, that, notwithstanding the fact that suppuration had existed in some of them for years, no case thus treated ever had amyloid degeneration. Now, inasmuch as phthisical patients are carried off most frequently by amyloid degeneration of the liver, kidneys, and spleen, it is a great discovery, if it receives confirmation, that we possess agents to prevent such a dire complication. With our present knowledge of this curious process we are forced to look upon it as a product of blood-poisoning; hence the efficacy of the administration of the benzoates, salicylates, etc.

Now, I think it would be advisable in these cases of threatened or commenced, but as yet limited, amyloid degeneration, to make a trial of these new remedies. They are said to combat the infectious principle in the blood, but the blood must be saturated almost with the remedy to secure perfect prophylaxis. We may begin with a half-teaspoonful of the salt dissolved in a wineglassful of water, three times a day, and gradually increase it to a tablespoonful or two per day. Unfortunately, the benzoate preparations are as yet too expensive for the long-continued use necessary in the cases which call for its use.

Further than this, we shall continue the use of the thick, hot poultices you see applied, and we shall freely administer alcohol, and milk, and eggs. If under this treatment the pus shall not freely escape, we shall assist the escape of it by the use of the aspirator.

TRAUMA OF THE ULNAR NERVE SIMULATING PROGRESSIVE MUSCULAR ATROPHY.

We have seen this session four cases of progressive muscular atrophy, and we have had so much to say about atrophy of the interossei muscles in these cases as the favorite seat of the first expression of the disease, that I have no doubt, if I should ask the question, "What is the matter with this man?" every one in the class would answer, "Progressive muscular atrophy." Our patient can straighten out this hand, as you see, but not the last phalanges of the fingers. Now it is a late anatomical contribution, the discovery that it is the little muscles of the hand—the interossei—that extend the two last phalanges of the fingers. The extensor communis suffices to extend the first, but not the last. Hence we have here "the clawed hand" from paralysis of the interossei muscles. The extended hand looks like a bird's foot as it is lifted from the ground.

But the atrophy here does not belong to the cases of progressive muscular atrophy. For, in the first place, it came on too rapidly. Then, having reached this profound degree of atrophy, it did not progress—that is, it did not invade other muscles. The deltoid acts perfectly, as you see. There is no wasting of muscle elsewhere. Especially you notice there is no wasting of the interossei in the other hand. So we look then for a local cause of this atrophy. Here is a cicatrix over the olecranon process; it crosses the track of the ulnar nerve. The wasting dates from the receipt of the injury at this point. Now, every one of these interossei muscles is supplied by the ulnar nerve. So a cross-section of the

nerve paralyzes every muscle. If no reunion occur, or if it be prevented by a bad cicatrix, atrophy of the muscles must result from their disuse. Here is a condition in which the spinal nerves are intact from the cord to the elbow. The interruption to the nerve-force occurs at the elbow. Here is simply a solution of continuity of the ulnar nerve, and this is a case of atrophy, not from a polymyositis or a patch of sclerosis in the cord, but simply from lack of uninterrupted nerve-fibre. You will therefore not be content to diagnosticate progressive muscular atrophy from "the clawed hand" alone. Two of them are much more significant than one. No case is recorded, so far as I know, where an accident crippled both nerves, or the interossei exclusively in both hands.

The prognosis here is bad. The atrophy is so profound that we get almost no response to either galvanization or faradization. Some time ago, before such long disuse had wasted away the muscles, there would have been a chance for this patient in exsection of the cicatrix and apposition by sutnre of the divided ends of the ulnar nerve.

Original Communications.

THE CAUSE AND TREATMENT OF GENU VALGUM.

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PART II.

THE treatment of genu valgum may be divided into the mechanical and operative, and the latter into section of the soft parts, and osteotomy.

Mechanical Treatment. — If the cause assigned for knock-knee in the first part of this paper is correct, then its treatment should have for its end the restoration of the condyles to their normal relation. It has been demonstrated that the tibia may be displaced: 1, by a bend in the lower third of the femur; 2, by a flattening of the external condyle from the superincumbent weight; 3, by a true hypertrophy; 4, by changes taking place in the interior of the head of the tibia; 5, by a combination of the above changes.

In regard to the statement that we sometimes hear, that children will "outgrow" this deformity, dependent on osseous changes, it should be said that it is very hard to obtain reliable data. Barwell, Little, and those who have had any experience with this deformity, deny its possibility. The mere report that one has known of a patient who was knock kneed and who now has straight limbs, should be received with a certain amount of doubt. In order to remove this deformity, mechanical appliances must act directly on the tissue at fault in causing the change in the long axis of the tibia, or we must produce a curve in the opposite direction, compensating for the abnormal one. Let us see how this can be accomplished. First, in regard to femoral curves. All splints used to correct genu valgum consist of a long steel bar, extending on the outer side of the limb from the upper part of the thigh, or pelvis, to the foot, with or without a joint opposite the knee; to this is attached a band or pad placed on a level with the knee, embracing that articulation so as to draw it outward, or, surrounding the lower end of the femur and upper portion of the tibia, to act in the same manner. The effect of such a brace is to tend to throw the tibia inward, toward the median line, the weakest tissue yielding. If the femur is still soft and pliable, and the external lateral ligament strong, it will be bent outward, and correct the curve at its lower third; if the external lateral ligament yields, the tibia will be brought into a straight line with the long axis of the femur; but the cause of the deformity will not be corrected, the whole tibia will rotate inward upon the internal condyle as a centre, leaving a space between its external head and the corresponding condyle of the femur; and as soon as the splint is removed the tibia returns to its former relation with the femur. In this position there can be no direct force applied to the femur. If the tibia be held in its normal position by the splint, and the patient be allowed to go about, the whole weight of the body in walking will be thrown upon the inner condyle, and provided the tissues are still soft, it will yield, and the deformity be corrected. Braces for the correction of genu valgum should have no joint opposite the knee, for as soon as any flexion of the leg on the thigh takes place, pressure is taken off from the internal condyle, and it ceases to act on it. In the second class of cases, namely, where the external condyle is flattened, the action of a splint would be the same as in the last class; our aim is either to bend the femur or flatten the internal condyle. Perhaps the external condyle may take on more rapid growth from the removal of pressure. In either of the above class of cases, mechanical appliances must be used early, while the bones are soft. As soon as rachitic bones calcify, they become very hard, and splints will prove of little avail, as the bone is more unyielding than healthy osseous tissue. The question naturally arises: At what period do the bones become hard and sclerosed? In quite an extensive experience in osteotomy for bow-legs, I have found that there does not seem to be any rule. I have seen the tibia very hard in a child of two and one-half years, so that section was made with difficulty, while in older children, ossification was not as advanced. I think that the amount of elasticity in the tibia is an index of the hardness of the bone. If you can, by the use of moderate force, spring this bone, sclerosis is not marked. As a rule, not much benefit can be expected from braces after the fifth year, and often after the fourth.

When there is a real lengthening of the internal condyle in young children, it is claimed that continuous pressure will cause atrophy of the internal condyle, and that in time it will assume its normal plane; in adolescence it is generally considered that mechanical treatment is useless in cases where the internal condyle is hypertrophied. Those who consider that the increase in the inner portion of the femoral epiphysis is secondary to ligamentous relaxation, and that the deformity is due partly to the lessened pressure on the internal condyle, causing its abnormal growth, and partly from atrophic changes taking place in the external condyle from increased pressure, propose by mechanical means to reverse the process; but the ill success that has followed the use of splints after the fifth or sixth year, does not seem to substantiate this theory. In cases where the deformity is due to tibial hypertrophy, either alone or associated with femoral changes, I do not know the result of protracted mechanical treatment; cases have not been under observation long enough.

In the use of braces in the deformity, they should extend from the pelvis to the sole of the shoe; there should be no joint opposite the knee. The use of a

rubber bandage to keep up continuous pressure has been found to work well, and is much more efficacious than metal straps.

Treatment, to be of any use, must be commenced early, for our only hope of success is in acting on the bones while soft.

I must confess that my experience in the treatment of genu valgum by splints has not been very satisfactory; patients have been brought to me when too old. I have been able to bring the tibia into a straight line with the femur and to hold it there, but it was simply a stretching of the external lateral ligament, as soon as the brace was removed, the deformity returned to as great a degree as before treatment. No effect was produced on the true cause of the deformity, namely, the internal condyle. I have divided the tendon of the biceps and the external lateral ligament, with the result in one case of a fatal termination from phlegmonous inflammation of the whole thigh. I have tried it in other cases, but with no benefit.

Mr Brodhurst exhibited a case before the Clinical Society of London, on whom he had performed a tenotomy of the biceps and lateral ligaments. Four months had elapsed since the operation, yet the patient was still unable to stand without the use of crutches. The limb, with the apparatus removed, could not be flexed beyond a right angle. There was free lateral motion at the knee-joint, and patient could only stand when supported by both hands. (*Lancet*, June 7, 1879, p. 812.)

Operative Treatment.—1. Section of the soft parts.—Tenotomy of the biceps and the external lateral ligament has been advocated. Mr. Brodhurst is now almost the only advocate of it. Mr. Barwell considers it worse than useless, and in this opinion most orthopædic surgeons agree. Mr. Lattle, in "Holmes's Surgery," says, "we were formerly accustomed, in severe in-knee of adolescents, to aid the mechanical treatment by section of the outer ham-string; but observation of the length of time occupied in the treatment, notwithstanding the tenotomy—and, indeed, a conviction forced upon us that the operation did not appreciably shorten the treatment—has caused us for many years to discontinue recourse to it. . . . . Division of the external lateral ligament is unnecessary."

These cases of contraction of the adductors and tendo Achillis, which simulate knock-knee, are often cured by tenotomy and an apparatus.

Mr. T. B. Fisher states, that the deformity of genu valgum, in an aggravated form, may be effectually relieved by manipulations of the limb, and the use of proper mechanical apparatus; but he gives no cases.

It is true that in aggravated and long-standing cases of this deformity the biceps is found shortened, so that, after an osteotomy, its tendon has to be divided before the tibia could be brought into its proper position; but this contraction is a secondary one, due to the difficulty in walking. If the cause of the deformity resides in the bone, it is evident that in order to act to the best advantage on it, the soft parts on the outer portion—ligaments and muscles of the knee—should remain intact, in order that force should act on the femur—any section of these tissues is a hinderance and not an aid to treatment.

In 1851, Meyer, of Wurtzburg, made a section of the shaft of the femur and tibia in both extremities, with good result, in a patient twenty years of age, for genu valgum, due to rachitic curvature of these bones.

Billroth, in 1872, partially divided the tibia one inch below the spine, and then fractured it for the relief of a genu valgum, and in the following year performed a similar operation for genu valgum.

Schede, in 1876, removed a V-shaped piece from the inner aspect of the tibia, at the same time performing osteotomy of the fibula, for the relief of a marked case of genu valgum, in a patient twenty-three years of age, with a good result.

These operations aimed to correct the malposition of the tibia, by giving it a bend in the opposite direction, the real deformity remaining.

Delore, in 1874, advocated, in a paper read before the Association Française pour l'Avancement des Sciences, the operation of "redressement brusque," in cases of genu valgum in patients under twenty years of age, or before the epiphysis had become consolidated to the diaphysis. The operation consists of forcibly bending the tibia inward, using the femur placed on the edge of the table as a fulcrum. The result was to separate the epiphysis of the femur from the diaphysis, often to rupture the external lateral ligament. In some cases the styloid process of the fibula has been torn off; in other cases, the epiphysis of the tibia has been separated, and not that of the femur. The time required to accomplish this varies from five minutes to half an hour. The ultimate result of the operation, M Delore states, is as follows. "During two or three months after the operation, the knee is stiff and movements are painful; but after about one year, all traces of discomfort and pain have disappeared in flexion and extension, and the re-establishment of the function of the joint leaves nothing to be desired." "Du mécanisme du genou en dedans," par le Dr. X. Delore, p. 7. He states that he has operated four hundred times without an accident. There is a liability of the deformity to return. I am not aware that the operation has been practised out of France, except once in England, when it proved a failure.

Mr. Annandale, in March, 1875, excised a portion of the femoral condyles for a marked case of genu valgum, due to a curve in the lower end of the femur; there resulted a stiff joint.

Mr. Howes made a total resection of the knee-joint in a girl, fourteen years of age, for genu varum, due to rapid atrophy of the internal condyle. (*Guy's Hospital Rep.*, 1875.)

In May, 1876, Mr. Ogston performed the first operation of detaching the internal condyle of the femur, and then sliding it up, so as to bring it on the same plane as the external. The following is the mode of operating: "A long and strong tenotomy-knife (Adams) was introduced through the skin three and a half inches above the tip of the internal condyle, on the inner side of the thigh, and so far back as to be opposite the ridge of bone running between the linea aspera and the condyle. Its blade was carried forward, downward, and outward over the front of the femur, with its cutting edge directed to the bone. When its point could be felt under the skin, in the groove between the condyles where the patella would normally have been lying in the flexed position of the limb, the cutting edge was pressed against the bone, and the soft parts divided by one slow movement in withdrawing the knife. . . . . An Adams saw was then introduced into the tunnel thus formed, and the condyle sawn off by directing the edge of the saw straight backward. . . . . As soon as it was estimated that the condyle was almost entirely separated, and that the saw had arrived near the popliteal space, it was withdrawn, and the remaining connections were broken by forcibly bend-

ing the tibia inward. The limb was then put up in a splint in a straight position." The operation was performed, and the wound dressed antiseptically.

In 1877, Mr. Chiene performed the following operation, in order to obviate the necessity of opening the joint: An incision, two or three inches long, is made over the tubercle for the insertion of the adductor magnus; the tendon of this muscle is exposed, and the incision continued between it and the vastus internus, some fibres of which are divided; the periosteum is incised and turned aside, and a V-shaped portion (the apex being turned downward toward the intercondyloid notch) is struck out of the internal condyle with a chisel and mallet, just above the adductor tubercle, and on a higher level than the epiphyseal line. The tibia is then pulled inward, and the leg so straightened; the sides of the V-shaped gap are brought into apposition. A few weeks later Mr. Macewen performed a similar operation, although in ignorance that Mr. Chiene had preceded him. Later Mr. Macewen adopted another mode of operating, namely: "Seeking a point half an inch above the upper border of the patella while the leg is in a state of extension, an incision is made just in front of the tendon of the adductor magnus, reaching the femur at one cut, the length of the wound being about three-quarters of an inch, and equal to the breadth of the largest chisel used. The shaft of the femur is then divided for the inner two-thirds of its thickness by three chisels, the largest of which is used at the commencement; thus a wedge-shaped opening is produced without removal of osseous material. The remaining outer third of the shaft of the femur either snaps or bends when the leg is straightened. The operation is performed antiseptically, and the limb treated like a simple fracture."

Mr. Barwell, who considers that in all cases of genu valgum the deformity is produced by changes taking place in both femur and tibia, divides the femur with a chisel just above the epiphysis, and corrects half of the deformity. Three weeks later he makes a section of the tibia just below the tubercle, and corrects the rest of the deviation.

Mr. Reeves makes a section of the internal condyle with a chisel in the same line as in Ogston's operation, but does not enter the joint with the chisel, his aim being to cut down to the articular cartilage, and after the condyle has been loosened to forcibly straighten the limb. He does not use the carbolic spray, but simply dips his chisel in carbolized oil.

Mr. H. S. Taylor (*British Medical Journal*, April 7, 1877, p. 429), for femoral curves, divides the femur with a chisel a hand's breadth above the joint from the outside, and then treats as a fracture.

Mr. Macewen finds that in some cases the femoral section does not correct sufficiently, and he then makes a section of the tibia, performing the four osteotomies at one time.

The immediate result of these operations is as follows: In Ogston's and Reeves's the internal condyle is slid up, so that its lower edge shall be on a higher plane than before. The re-entering angle thus formed on the free surface of the lower end of the femur is in time filled up partly by osseous material derived from the bone, and partly by connective tissue, derived from the serous surface of the condyle (Thiersch). In Macewen's, it is intended that the section shall be wedge-shaped, its apex directed outward, and that in fracturing and straightening the limb the two surfaces of the V-shaped section shall be brought into apposition. In Barwell's and Taylor's operations, when the limb is straightened, there is left a V-shaped interval, with its apex directed inward when the bone is brought into position, which, in time, is filled with new osseous material, the same as after osteotomy for bow-legs.

These operations may be divided into two classes —those in which the operation is performed on the condyle alone, and those in which the section is made above the epiphysis, through the shaft of the femur. To the first belong Ogston's, Chiene's, and Reeves's; to the second, Macewen's, Barwell's, and Taylor's.

Osteotomy, for the relief of genu valgum, has probably been performed over three hundred times. I have been able to collect the record or reference to about two hundred and fifty cases, namely: ten Chiene's; seven Taylor's, eighty-three Ogston's; sixty-four Reeves's; ninety Macewen's. I can only find two of Barwell's recorded, or any reference made to them.

A strict analysis of these cases is impossible, because they are not given in detail.

In forming an opinion in regard to the choice between different operations having the same end in view, attention should be paid—1. To their fatality; 2. Tendency to accidents (necrosis and suppuration); 3. Time occupied in treatment; 4. The final result. There have been but four fatal cases reported, namely: one by Thiersch, from uræmia, six weeks after an Ogston; one by Dunlap, fatal on second day, after a Macewen, from cellulitis of the thigh from bad bandaging; and one by Barker, from septicæmia, following an Ogston.

The joint is, of course, entered in all cases of Ogston's operation, probably fractured into in Reeves's in the majority of cases, so that it cannot be called strictly extra-articular. It has been opened in Chiene's. As a rule, it is not entered in Macewen's, although in Dunlap's fatal case the fracture was found to run into the joint. Taylor's and Barwell's section being made farther away from the knee would not probably involve it.

Theoretically, those operations in which the joint is involved should be more liable to complications than those in which it is not disturbed; but, practically, there does not seem to be any increase of danger, and it is astonishing how much disturbance the knee will tolerate without the least reaction following; even effusion or collection of blood in the joint after Ogston's operation is often absent, and their presence does not seem to interfere either with the progress of the case or the ultimate result. The application of ice and a rubber bandage about the joint is all that is requisite. In a few reported cases there has been some stiffness remaining for a time, but whether it was due to intra-articular adhesions or from being kept up in splints too long, is not stated.

There are no cases on record, as far as I can ascertain, where there has been any caries or necrosis following any of these osteotomies.

Suppuration.—Out of thirty-three cases Macewen states that only in two did the rectal temperature rise above 100.8°—namely, 103°. He only reports one case where there was any suppuration. (As a rule, after osteotomies any reaction or rise in temperature is rare. In an experience of thirty osteotomies I have seldom found any elevation of temperature.) But other operators have had some purulent discharge after section above the condyles. Reeves has had suppuration in three cases after his operation, and in one case an effusion into the joint, lasting three or four weeks.

Cases of suppuration after Ogston's are reported, but the number is not given. In all of these the pus was extra-articular, being between the muscles.

The time elapsing after the section, and before the patient is able to use his limbs with safety, differs in the various operations. After an Ogston's it varies from five to six weeks. In Ogston's first case the patient began to use his limb five weeks after the last osteotomy; the age of the patient was eighteen years. Fowler's patient, aged nineteen years, began to use his limbs in three weeks.

Macewen states that it is necessary to keep the limbs in splints five or six weeks.

Chiene did not allow his patient to walk for a month. In one of Taylor's cases of section, some distance above the condyle, the patient did not attempt to walk for two months.

In a case of Barwell's, performed by Benton, where there was section of the femur and tibia of both limbs, in a patient ten years of age, nine weeks elapsed after the last operation before walking was permitted. After a Reeves's, patients have been walking in three weeks. Mr Reeves states that many cases may be safely *discharged* in five weeks. Barwell's and Macewen's operations are more formidable, from the fact that more bone has to be divided; and, notwithstanding the statement of Macewen, there is more liability to suppuration after the operation advocated by him than after either Ogston's or Reeves's; at least I find more cases of suppuration and less rapid closing of the wound than after condylotomy. Mr. Barwell's operation does not seem to have been received with favor, probably from the number of sections required.

In regard to the ultimate result, the universal experience seems to be that equally good results have been obtained after any and all of these operations. There are no cases on record in which there has been any return of the deformity, or any genu varum produced by over-correction, although Mr. Brodhurst says he has seen such cases; but they are not on record.

It should be added that, in some old-standing cases, tenotomy of the biceps and lateral ligament have been necessary in order to permit the tibia to be brought into line.

In both Ogston's and Reeves's operations the section should not be made too slanting, as difficulty will be experienced in sliding the condyle up. The direction of the chisel should be as near the perpendicular as possible.

Strictly antiseptic methods are not generally adopted in osteotomies. In some of my earlier cases of this operation for bow-legs I used the spray, and followed the Lister rules strictly. I have since abandoned the use of the spray, and simply syringe out the wound with a one to forty solution of carbolic acid, and my results, *in every respect*, have been just as good as when I performed my operation antiseptically.

Osteotomy for genu valgum has been performed five times in this country, as far as can be ascertained as follows: in 1878 Dr. Fowler, of Brooklyn, two Ogston's, with good results; in 1879 Dr. Wilmarth, of Newark, N. Y., a Macewen; in November, 1879, I performed a Reeves (MEDICAL RECORD, April 10, 1880); and shortly after my friend Dr. Briddon, another.

There is an impression in the profession that section of bone, or the entering of a joint, is a very serious operation, and one that should not be undertaken except in very extreme cases. A careful study of a large number of cases reported in the foreign medical journals, and quite an extensive personal experience, have convinced me that it is no more serious than a simple fracture, and that recovery takes place about as rapidly.

The question as to the age when osteotomy should be performed depends upon the age when calcification takes place, and the date beyond which all hope of rectifying the deformity by mechanical means has passed.

Many surgeons consider that about the seventh or ninth year is the best age to operate in those cases in which the deformity has appeared during infancy, and after the deformity has become marked in the adolescent cases. But the real question in the former class is, At what age is a cure by mechanical appliances not to be expected? because as soon as splints cease to do good they do harm by causing atrophy of the muscles and by excoriations of the skin. For my own part I think that an early operation is to be advocated, because it perfectly corrects the deformity at once, and is devoid of all danger, and allows our patient to take part in the sports of other children, and thus insure a more perfect development.

In hospital cases, or in children of the laboring class, I would operate, in proper cases, as early as the fourth or fifth year, because it relieves the parents of much care and expense; for we all know how difficult it is to keep braces in good order and have them properly applied. Another argument in favor of an early operation is that it prevents secondary changes taking place in the feet and knees. I am as strong an advocate of the mechanical treatment of genu valgum as any one, in appropriate cases, and am satisfied that perfect results can be obtained if the cases are taken in hand early. I am also satisfied that if there is no gain after months of careful treatment with a properly applied brace, then nothing will be gained by further persistence in the use of splints, but that osteotomy should be performed.

A REMARKABLE INSTANCE OF PERIODIC OBSTRUCTION OF A URETER IN A SOLITARY KIDNEY—AUTOPSY.

By D. M. WILCOX, M.D.,

LEE, MASS.

THE person presenting this abnormality was a native of Ireland, 42 years of age, weighing about 145 lbs.; about 5 ft. 6 in. in height; of nervous temperament, active habits, and strictly temperate.

From the patient himself the following brief history was obtained: Some twelve years ago he had an attack of severe pain in the left side, extending from the hypochondrium to the inguinal region, accompanied by complete suppression of urine, and continuing for two days. After an attack of vomiting he felt relieved, and soon voided a large quantity of pale urine.

Similar attacks, lasting from a few hours to two days, followed at irregular intervals for about four years, his general health, however, continuing good. He then changed his occupation from that of a papermaker, working half-day and half-night, to that of undertaker and furniture dealer, hoping to find, in a less laborious employment and by an avoidance of night-work, some relief from the distressing attacks. From that time the seizures were less frequent, and for three years preceding the final seizure he had complete immunity.

At no time was there blood or any abnormality of the urine, nor was he conscious that any concretion had been voided with it.

I was called to see the patient February 29th, and found him with, as he expressed it, a "pressing" pain in the left abdominal and inguinal regions, its focus posteriorly just below the twelfth rib. The testicle upon the same side was painful and retracted; some nausea, but no vomiting; pulse moderately full and 66 in frequency. Two days before, he had exercised unusually hard, and a few hours after he was unable to pass urine.

I told him there was, doubtless, gravel passing from the kidney to the bladder, and trusted the trouble would terminate as happily as his former attacks had done. I could account for the complete suppression only on the hypothesis of some abnormality or loss of function of the right kidney. Prescribed an anodyne, and was told that I need not call again unless sent for.

I was awakened at 2 A.M., March 2d, about thirty-six hours after my first call, and my attendance requested. Found patient walking about the room, moaning from pain. No urine had yet been passed. Had slept but little since the attack commenced; some, but not severe, headache; had vomited several times since my first visit. The temperature was normal and pulse 66; skin gently perspiring.

A desire was expressed by the family to call in Dr. Holcombe, of this place, in consultation, and I appointed nine o'clock that morning for the hour of meeting. Gave ¼ gr. morphia, and ordered it repeated every two hours while severe pain should continue.

At the appointed time I was present, and found patient much easier. He was dressed, and declared he was able to look after his affairs; said he did not then wish the consultation. The nausea had ceased, and he had taken a light breakfast.

I was then obliged to be out of town for a day, and during my absence the pain and nausea returned and Dr. Holcombe was called, under whose care the patient remained a fortnight, during which time I did not see him, but from the doctor I received the following history: He was called about 9 P.M., March 2d, and found the patient vomiting and complaining of pain, both of which were speedily checked with small doses of morphia. Micturition did not occur until March 4th, six days after cessation.

The doctor did not see the urine passed, but patient said there was a large quantity, and it "looked all right."

There was no further trouble until March 9th, and though somewhat depressed, patient attended to his business as usual, and on one occasion rode about four miles.

Suppression again occurred March 9th, followed by the same *ensemble* of symptoms as in the previous instance.

March 16th I was called in consultation. Found the patient in bed, though he was able to sit up some of the time; depressed in spirits and mind, at times slightly wandering. Pulse slow and regular; temperature natural; skin gently perspiring; tongue coated, brown, and moist; vomiting frequent, prohibiting the retention of much nourishment. Some pain in left side and testicle as when I saw him a fortnight before.

March 17th.—As Dr. H. was obliged to be absent for a few days, the patient came under my charge again. Very little change in symptoms and appearance since yesterday.

March 19th.—Little nourishment has been retained on the stomach for several days, and there is considerable prostration. Very fretful and irritable, and mind frequently wanders; abdomen tympanitic; skin moist.

Thus far not much medicine has been given. The bowels have moved several times from patient drinking occasionally Congress water, and the pain, though not entirely removed, was easily made bearable by a small amount of anodynes.

The friends insisting on more active medication, Dr. Wright, of this place, was called in, and to him I resigned the treatment. Being requested to continue in attendance, I had, however, opportunity to watch the case.

Dr. W. administered syrp. fer. iodidi, gtt. x., every hour; quinine, grs. ij., every three hours; and by enema, ol. terebinth and tr. opii. ää gtts. xx., suspended in glycerine and starch every three hours.

March 20th.—Patient vomited less; in other respects no perceptible change.

March 21st.—Vomiting has ceased, and whatever food or medicine is given is tolerated.

March 22d.—About 1 A.M., several ounces of urine was passed, the first for thirteen days. This was repeated several times before 1 saw him at 8 A.M. The quantity could not be well estimated, being mostly passed in bed, the attendants receiving no warning. Some was saved, however, of which I found the reaction slightly acid; sp. gr. 1014; no albumen. The microscope showed some epithelium and amorphous urates, but no blood, pus, or casts. During the remainder of the day patient urinated three or four times. The last time about 8 P.M.

March 23d.—No urine passed to-day. Patient failing fast. Pulse, though weak, is slow and regular; skin moist; muttering delirium, though he can be roused to answer intelligently. Same medication continued.

March 24th.—Patient died about 2 P.M. Autopsy twenty-two hours after death, in the presence of Drs. Wright and Fish. The blood-vessels of the peritoneum were slightly injected. Its cavity contained about three pints of clear urine similar in composition to that passed the 22d, save that it contained some albumen. There was no trace of a right kidney. The left was in normal position, and including the supra-renal capsule was eight and one-half inches in length. The capsule congested, and presenting dark livid spots at its upper and anterior part, through one of which was a small perforation whence the urine had passed into the peritoneal cavity. The cortical substance, save some congestion, appeared healthy. The pelvis showed marks of having been greatly distended, and then contained three or four ounces of urine. Besides an ureter passing to the bladder normally, there was a rudimentary one passing from the upper part of the pelvis and, crossing the vertebral column, was joined at the proper place to the bladder. A fine probe could be passed in its lower section. In the upper, owing to pathological changes, it was not possible to decide whether it had been pervious. The left ureter was closed just above its junction with the bladder by a little ovoid mass about one-quarter of an inch in its long, and one-sixth of an inch in its short diameter, containing, within a firm fibrous capsule, two calculi of uric acid, each about the size of a hemp seed. This was held within the ureter by a ligament which permitted some mobility, and had been doubtless the cause of the repeated attacks of suppression. Just why it should have acted as a complete obturator to the ureter only occasionally, and sometimes with long intervening periods of complete immunity, I am unable to say.

Probably, perforation of the pelvis renis took place

after the last act of micturition, March 22d, at 8 P.M., and was due, of course, to the great and long-continued pressure of the pent-up urine; and, although that pressure had been partially or wholly removed by the natural flow of the urine, yet the injury of tissue was so great at one point as to result in destruction and perforation.

One of the peculiar features of the case was the absence of grave uræmic symptoms after a complete suppression of six days; and in the last attack, when suppression had lasted thirteen days, the gravity of the symptoms were not what might have been expected.

CASE OF CYSTITIS RESULTING FROM STRICTURE, AND CURED BY CYSTOTOMY AND THE APPLICATION OF THE ACTUAL CAUTERY OVER THE PUBES.

By ALFRED C. POST, M.D., LL.D.,

NEW YORK.

Read before the New York Surgical Society, May 11, 1880.

ROBERT GLASSFORD, carpenter; born in New York; ætat 33; unmarried; admitted into the Presbyterian Hospital on the 4th Sept., 1879.

Previous History.—The patient had always enjoyed good health, until he contracted a gonorrhœa, eight years before his admission. This was followed, after six months, by a stricture, in consequence of which the stream of urine became small and twisted. He was examined by a physician, who found a stricture deep in the urethra. He has had repeated attacks of gonorrhœa since the occurrence of the stricture. The last attack was about three years ago. During the year before his admission he had a gleety discharge, but no pain on micturition.

Sept. 6th.—I examined him under ether, and found several strictures. A bulbous sound of 30 mm. in circumference was arrested at the depth of an inch and a half. After slightly incising the meatus, I passed Otis's urethrotome into the stricture, dilated it up to 32, and then cut the stricture. The bulbous sound No. 30 was then passed without difficulty. Another stricture at four and a half inches was then divided in the same manner. At five and a half inches from the orifice I encountered a third stricture, through which I could not succeed in passing any instrument, even a filiform. The patient was put to bed, and ten grains of sulph. quiniæ was given to him with one-third of a grain of sulph. morphiæ.

7.30 P.M.—Patient a little chilly. He had a slight rise of temperature. An additional dose of ten grains of sulph. quiniæ was given to him.

Sept. 7th.—Patient is very easy this morning. As he had some difficulty in passing his urine, hot cloths were applied over his bladder.

Sept. 9th.—Urine dribbles, but does not pass in a stream. Sounds Nos. 30 and 32 were passed as far as he had been cut. A filiform bougie was passed into the bladder.

Sept. 11th.—Nos. 30 and 32 were passed as before, but the filiform instrument could not be passed into the bladder.

Sept. 15th.—Another unsuccessful attempt was made to pass the filiform bougie.

Sept. 16th.—I performed external urethrotomy. The patient being etherized, I introduced a staff 22 mm. in circumference to the depth of five inches, where it was arrested by the stricture. I then made an incision into the groove of the staff, half an inch in front of its distal extremity, and exposed the urethra in front of the stricture. Curved needles armed with ligatures were then introduced on each side through the lips of the urethral wound, and traction made in opposite directions, so as to expose fully the mucous membrane of the superior wall of the canal. The incision was then made three quarters of an inch further along the canal, and curved needles armed with ligatures were introduced through the extended wound. On making tractions upon the ligatures in opposite directions, the urethra appeared to terminate in a blind pouch, at the end of which no continuation of the canal could be seen, or detected by a probe. The external incision was then carried backward nearly to the verge of the anus, and the index finger of the left hand being introduced into the rectum, and that of the right hand through the wound, the ends of the two fingers were brought nearly together opposite to the triangular ligament. The incision was carefully extended into the vicinity of the triangular ligament, and a finger again introduced into the deepest part of the wound, when a gush of turbid urine took place, the finger having penetrated the dilated pouch of the urethra behind the stricture. A silver catheter was then passed through the whole length of the urethra, and the urine drawn off, after which the bladder was thoroughly washed out with an irrigator. A steel sound, No. 33, was then passed through the whole length of the urethra into the bladder. As soon as the patient recovered from the ether he took ten grains of sulph. quiniæ with one-third of a grain of sulph. morphiæ.

Sept. 17th.—Patient very comfortable. Urine dribbles through the perineal incision. In the afternoon he suffered from colic, with flatulence; relief was afforded by a dose of turpentine.

Sept. 19th.—Sounds, 27 and 30, were passed into the bladder without difficulty, guided by a finger introduced into the wound.

Sept. 21st.—Sounds 27, 30, and 33, were passed. A portion of the urine escapes through the meatus.

Sept. 30th.—Wound granulating well; washed with carbolic acid, 1 to 40, two or three times a day.

Oct. 14th.—Sounds 28, 30, and 31, passed every other day. Urine continues to pass partly through perineal wound and partly through meatus.

Oct. 15th.—Examination of urine. Sp. gravity, 1010. Reaction, alkaline. Color, light straw. Odor foul. Sediment, copious and white. Phosphates. Flat epithelium. Pus. No considerable amount of albumen. The external wound is lightly touched every other day with the following solution:

℞. Argenti nitrat..... ℈ i.
Aquæ..... ℥ ss.
M.

Oct. 25th.—Injected bladder with nitric acid diluted with water, sixteen minims to a pint. On passing the catheter, the bladder did not empty itself, but on making pressure, five ounces of residual urine were expelled. This was ammoniacal, and contained a large quantity of mucus and pus.

Nov. 13th.—The bladder has been daily washed out with the acid solution. But the bladder has not recovered from its atony, and the residual urine continues to be loaded with mucus and pus. To-day I performed cystotomy, as advised by Prof. Willard Parker. The patient being etherized, and a large staff having been introduced into the bladder through the urethra, I made an incision on the left side of the perineum, extending from the fistula left by the former operation, down to a point midway between the anus and the tuberosity of the ischium. The

point of a scalpel was introduced into the groove of the staff, and pushed on to the neck of the bladder, dividing the prostate gland as in lateral lithotomy. Sims's rectal dilator was then introduced through the wound into the bladder, and the screw was turned so as to expand the blades to the extent of nearly two inches. This expansion of the neck of the bladder caused a pretty copious discharge of urine loaded with pus. The cavity of the bladder was washed out with an irrigator. Two fingers could be readily introduced through the enlarged opening into the bladder. A drainage-tube was introduced through the wound into the bladder, and direction given to wash out daily with the acidulated lotion previously used. As an additional means of overcoming the cystitis from which the patient was suffering, an actual cautery, half an inch in diameter, was heated to a red heat, and applied to two points in the hypogastric region, so as to destroy the whole thickness of the skin at these two points. The burned surfaces were covered with a paste of soda bi-carb. moistened with water. After the patient was put to bed, ten grains of sulph. quinia were administered.

Nov. 14th.—Patient rested well during the night. This morning the bladder was washed out with the acidulated lotion. The drainage-tube gives free exit to the urine.

Nov. 16th.—Drainage-tube removed, cleaned, and reintroduced, and the bladder washed out. General condition good. Temperature lower than it has been since admission.

Nov. 20th.—Sound No. 30 introduced through urethra. Bladder washed out through wound.

Nov. 24th. — Drainage-tube left out. Bladder washed out through silver catheter introduced through whole length of urethra. Sound No. 31 introduced.

Dec. 5th.—Patient can hold his water for an hour, and then expel it with a good degree of force. Bladder washed out as before. Ordered ferri dialysat. gtt. xv. ter in die.

Dec. 15th.—Bladder washed out every other day with nitric acid solution (℥j. to ℥j) after a sound No. 30 has been passed. The ulcers from the actual cautery are healing. Urine flows freely through the opening in the perineum.

Dec. 30th.—Patient has complete control of evacuations from bladder. Cauterized opening of fistula with arg. nit.

Jan. 16th.—Etherized patient and applied actual cautery to fistula.

Jan. 30th.—Fistula diminished, but still a considerable portion of urine flows through it.

Feb. 18th.—As urine has continued to flow through the fistula, I performed the following operation for the purpose of closing the artificial opening: The patient being etherized, I dissected up a semi-elliptical flap about an inch and a half in length and half an inch in breadth on each side of the fistula. The two broad surfaces of the flaps were brought in contact and supported by perforated felt splints, through which two rows of silver-wire sutures were passed, so as to elevate the two flaps into a prominent crest. The edges of the flaps were united by fine silk sutures.

Feb. 19th.—The flaps remain in close contact.

Feb. 24th.—The splints and sutures were removed. Union is complete, except at the two extremities of the flaps, where there are small openings through which a portion of the urine escapes.

Feb. 29th.—The posterior opening has closed.

March 4th.—The anterior opening is contracting, but some urine still escapes through it.

March 8th.—As there was some difficulty in passing a sound through the urethra, Otis's urethrotome was passed through the contracted portion of the canal, and after it had been stretched to 33 millimeters, the point of obstruction was divided on the dorsal surface, after which the instrument was passed with ease.

March 15th.—The fistulous opening in the perineum is entirely closed. The bladder continues to be washed out every second day with the nitric acid solution.

March 31st.—As there was still some difficulty in passing a catheter, apparently due to an obstruction at the meatus, this portion of the canal was enlarged with a straight probe-pointed bistoury, after which the catheter passed more easily into the bladder.

April 8th.—A bulbous sound, No. 34, was arrested at three and a half inches from the meatus. Otis's urethrotome was employed to remove the constriction, after which conical sounds Nos. 28, 30, 33 and 34 were passed with ease into the bladder.

April 15th.—The patient left the hospital in perfect health, passing his urine in a full stream, and with a good degree of force.

The urine was clear and deposited no sediment, all traces of inflammation having subsided.

The following are the points of special interest in the case which has just been detailed.

1st. The complete cure of a series of strictures of long standing, one of which was very close and resisting. The means of cure were external and internal urethrotomy and persistent dilatation.

2d. The cure of an obstinate cystitis, indicated by an almost complete atony of the bladder, and by a very copious deposit of pus and mucus in the urine. The means by which this desirable result was obtained, were, the cure of the stricture, the free division and dilatation of the neck of the bladder, the powerful revulsion occasioned by the actual cautery, and the thorough irrigation of the vesical cavity with an acidulated lotion. I do not think that the results could have been secured without a combination of all these remedial measures.

3d. The cure of a perineal fistula, resulting from the external urethrotomy, and showing a remarkable indisposition to heal. As a general rule, the incision made in external urethrotomy is disposed to heal within a few weeks. The persistence of the fistula in this case was probably due to the cystitis, with its unhealthy secretions, and the atony of the bladder, causing a continuous dribbling through the perineal opening. Before the cystitis was cured, the fistula had become confirmed, and had lost its tendency to heal. The application of the actual cautery had occasioned some contraction of the fistula, but had failed to close it. The means by which the fistula was finally healed, consisted in the performance of the plastic operation originally suggested by Dieffenbach, viz., dissecting two flaps, one on each side of the fistula, and uniting their two broad surfaces, so as to form a crest projecting beyond the surface of the surrounding parts.

A Medical Novelist.—Dr. T. C. Minor, late health officer of Cincinnati, has been found out at last. He is the author of "Her Ladyship," an exceedingly popular novel recently published. It depicts Southern life after the war, and its descriptions are said to be very finely drawn.

Progress of Medical Science.

TREATMENT OF PHTHISIS BY INHALATIONS OF BORAX AND SALICYLIC ACID.—Dr. Müller, a Berlin chemist, lays claim to the priority in the employment of antiseptic inhalations in the treatment of phthisis. He states that he recommended inhalations of borax and salicylic acid in a case of phthisis in 1876, and that his suggestion was carried into effect by Dr. Sachse, of Berlin, with remarkable success. He was led to make this suggestion by the theory, that in pulmonary phthisis a portion of the lungs is in a state of decomposition, or of alkaline fermentation, and as similar processes in open wounds are controlled by antiseptics, so the inhalation of antiseptics might be expected to exert an inhibitory action on the morbid process in the lungs, and thus effect a cure. He recommended for this purpose salicylic acid, which was made easily soluble by the addition of borax. This combination is quite as powerfully antiseptic as the benzoate of soda, and is, he believes, preferable to it, because it acts more energetically on the alkaline fermentation in the lungs, and produces no deleterious effects. The solution he recommended was 750 parts water, 25 parts salicylic acid, and 19½ parts borax.

Dr. Sachse, in an open letter, confirms the claims of Dr. Müller, and states that he has since employed the borax salicylic acid inhalations in a number of cases, of which he gives brief accounts, with, on the whole, very satisfactory results. He uses a solution of two parts borax, 2½ parts salicylic acid, and 100 to 150 parts hot water, and orders the inhalations to be practised morning and evening for five or ten minutes, instructing the patients not only to inspire deeply, but particularly to make deep and prolonged expirations. The inhalations often caused, at first, cough and a slight burning sensation in the neck, and some of the patients complained of loss of appetite, due to swallowing a good deal of the fluid; in such cases the solution was diluted with an equal quantity of hot water, until the patients became accustomed to it. The taste of the solution is bitter and very unpleasant. No hæmoptysis occurred in any of the cases after the inhalations.—*Allg. med. Cent.-Zeit.*, February 18, 1880.

ON THE VALUE OF QUEBRACHO AND OF INHALATIONS OF BENZOATE OF SODA.—Dr. Frommüller, of Furth, reports three cases, one of phthisis, with severe dyspnœa, one of severe asthmatic attacks complicating an extensive burn, and one of dyspnœa due to cirrhosis of the liver, with general dropsy and slight hydrothorax, in which the dyspnœa was greatly relieved by the internal administration of quebracho. He gave a teaspoonful every three hours of a mixture containing one part of the fluid extract of quebracho to two parts of water. In all, he has used quebracho in about forty cases, some of which were cases of essential asthma, and the rest of dyspnœa due to various causes. The results, as was expected, were not uniform. Sometimes the remedy proved useless, and sometimes the patients refused to take it on account of its peculiar taste and of the burning sensation in the throat caused by it. In cases of pneumonia, with pronounced dyspnœa, it sometimes gave great relief.

Dr. Frommüller also reports that he has treated a number of cases of phthisis with inhalations of benzoate of soda, according to Rokitansky's method. Some of the patients seemed to be benefited slightly at first, but the amelioration proved very transitory; the inhalations soon became very onerous and painful, and finally had to be discontinued entirely. He has now discarded this method of treatment, as he found it useless, troublesome, and expensive.—*Allg. med. Cent. Zeit.*, February 18, 1880.

RECENT INVESTIGATIONS ON THE BLOOD.—It has, up to the present time, been believed that hæmoglobin, which exists in the blood of all vertebrate animals, is not crystallizable in all of them. M. Blanchard, however, states that the hæmoglobin of the blood of any animal will always be found in crystallized form, after the blood has remained for some time in the stomach of a leech. To obtain the crystals, it is only necessary to make a leech suck the blood of an animal and subsequently disgorge it. If the crystals be exposed to the vapor of a concentrated solution of carbolic acid, they become insoluble in glycerine, and can be preserved for an indefinite period. The form in which iron exists in hæmoglobin is still a matter of dispute. Mr. Joly insists that it is always in the state of a phosphate. The blood of the octopus vulgaris, according to Frédéricq, contains no hæmoglobine, but in place of it a unique albuminoid substance, which he calls *hæmocyanine*, because, in its chemical constitution, copper takes the place of the iron in hæmoglobin. The venous blood of the octopus is colorless, the arterial blood a pronounced blue. M. Paul Bert, several years ago, discovered this same substance in the cuttle-fish, but did not give it a name. Frédéricq has also found it in the lobster. Hæmoglobin is frequently found in the leucocytes, and Prof. Kühne, of Heidelberg, states, though on rather insufficient grounds, that he has also found it in the voluntary muscles. The quantity of hæmoglobin present in the blood of a man of ordinary size is estimated at about 125 grammes. The quantity is relatively larger at birth than at any other period of life; it is least between the ages of six months and five years, and then increases, gradually attaining its second highest point between the ages of twenty-five and forty-five years, after which it again decreases slightly. The quantity of hæmoglobin does not diminish appreciably during the course of acute febrile diseases, but it does during a prolonged convalescence, and in chronic diseases.—*Le Progrès Médical*, Jan. 17, 1880.

ON THE TREATMENT OF ENDOMETRITIS.—The indiscriminate cauterization of the uterus has been so often resorted to without a careful consideration of the etiology and pathology of the diseases to be treated, that in many instances more harm than good has resulted. In the treatment of endometritis, Dr. J. Hickinbotham, of Birmingham, England, suggests that the physician should take a careful survey of each case before proceeding to the treatment. He tests the nervous system, as in his experience the disease is often occasioned by overwork and mental anxiety; excessive sexual intercourse, and other causes of an exhausting nature, should also be considered. To remedy the first condition he gives phosphorus and iron, or strychnine, and when the patient is peculiarly nervous, bromide of ammonium and potassium. For topical use, morphia and belladonna are highly extolled. The extract of belladonna may be applied directly to the cavity of the uterus by means of a probe. If morphia is employed, one-third or half a grain is made use of in the same way. If there is great thickening of the womb, a glycerine tampon may be introduced and the parts scarified.

A belladonna plaster is often placed over the sacrum to alleviate the pain. Opiate suppositories also are useful. After the subsidence of acute symptoms, if the pain still continues, counter-irritation may be resorted to, as by blisters to the sacrum, or weak liniments of croton oil. Rest, together with the complete abstinence from sexual intercourse, is specially enjoined.—*Birmingham Med. Review.*

Some New Observations upon the Anatomy and Functions of the Ankle and Tibio-fibular Joints.—Dr. Nancrede, of Philadelphia, describes the arrangement of the ligamentous fibres entering into ankle and tibio-fibular articulations as follows: "The fibres have an oblique direction downward from the tibia to the fibula, the upper tibio-fibular joint being a loose one, and more movable. As there is a tendency for the body to be propelled forward when the foot is placed, thus causing dislocation, the ligaments should be inelastic and inextensible. As a further precaution against luxation, the ligament should be tight, which would prevent free flexion. To obviate this, according to Dr. Nancrede's observations, the astragalus is wedge-shaped with the base in front, and as the bones of the leg move forward, their articular surfaces and those of the astragalus are pressed together. To admit of free flexion, which is necessary in walking, an adaptable socket is provided by having one of the bones of the leg—the fibula—movable. In flexion the wide or anterior portion of the astragalus presses up between the narrow part of the tibio-fibular articulation, and the fibula glides upward. In extension, the narrow portion of the tarsal bone is carried forward, the bones of the leg are approximated, and the fibula moves downward."—*Phila. Med. Times*, March 27, 1880.

Remarks on Lipæmia Retinalis Occurring in a Case of Diabetes Mellitus.—In the July number of the *Edinburgh Medical Journal* for 1879, Prof. Sanders and Dr. Hamilton contributed a paper on the "Lipæmia and Fat Embolism in the Fatal Dyspnœa and Coma of Diabetes," in which the results of the post-mortem examination of two patients dying from the above cause are given, and in whom the blood presented a milky stratum on top and contained oil-globules and granular matter in great abundance. Dr. A. G. Heyl, of Philadelphia, describes a somewhat similar case occurring in a man, the eyes in this instance being also affected. The fundus of the eye presented the following appearances on ophthalmoscopic examination: the arterial and venous blood-vessels were of a very light color, approaching that of the fundus, and on that account could not be traced to any distance, although a vessel was seen in its upper half which stopped at the edge of what appeared to be an excavation, and was probably a branch of the artery. The veins were enlarged, but not tortuous. Blood from the finger of the patient presented a milky-red color, and on microscopic examination fat-globes were found. The red globules were counted, but the patient was found not to be leucocythæmic. The peculiar condition of the blood-vessels of the fundus of the eye was thought to be due to the presence of fat in the blood.—*Phila. Med. Times*, March 27, 1880.

Congenital Dislocation of the Wrists.—Congenital dislocations occur so infrequently that many writers of systematic treatises on surgery dismiss the subject with merely a cursory mention. Some authors do not believe that this form of dislocation ever occurs at the wrist unless accompanied by fracture. Dupuytren, among others, held this opinion. Thus far, but ten cases of congenital dislocation of the radio-carpal joint have been placed on record, to which Dr. J. H. Pooley, of Columbus, Ohio, adds another. The patient, a married woman, thirty-three years of age, has remarkably short forearms, being both of the same length, and measuring eight and one-quarter inches from the olecranon to the styloid process of the ulna, being about one and a half inches shorter than the average; the radius measures seven and a half inches in length, and the hand six and a quarter. The appearance presented is that of dislocation forward of the wrist. On the posterior surface of the joint there is a projection of the ulna and radius to the extent of three-quarters of an inch. The carpal bones are pushed forward in the opposite direction. The joints admit of greater flexion than would be the case were there no deformity, whilst extension is performed with difficulty and limited to a line parallel with the forearm. The patient has always enjoyed good health, never having received any injury of the parts involved, nor have they been the seat of disease at any time. She can use her hands with freedom in the performance of her household duties, and can sew with ease. The main points in favor of its being a congenital dislocation are the history of the case, and the examination, together with the presence of the deformity on both sides.—*Am. Practitioner*, April, 1880.

Homœopathic Springs for Fever and Ague.—In Westphalia there is a spring which, after flowing for twenty-four hours, entirely ceases for six, then returns with a very loud noise, and in a stream large enough to turn three mills. The well at Torbay ebbs and flows sixteen times in an hour. The Giggleswick well in Yorkshire rises and falls every ten minutes. St. Anthony's well, near Edinburgh, has a similar regular intermittent movement. In Savoy there is a spring which is very uncertain and irregular in its rises and falls; this water has been suggested for the irregular chills of pyæmia, while sea-water, which rises and falls regularly with tides, is said by Dr. Max Greubler to rival natrum muriaticum in the cure of intermittent fevers. He also hints that the other waters may be tried in obstinate cases of fever and ague. The waters from the intermittent geyser springs in Iceland have not yet been suggested by Dr. Greubler for the worst cases, but he points, with pride and pleasure, to the numerous cases of malarial disease which have been cured at the springs, called the *Puits de Vaisse* at Vichy, which have a perfectly regular and curious *intermittent* action, preceded by a subterranean noise, followed by a violent eruption of mud, water, and gas, strongly impregnated with the hydrosulphureous odor, which occurs at intervals more or less regular, six or eight times every twenty-four hours. Dr. G. prides himself very much upon a homœopathic inspiration which led him to give these waters, especially in cases attended with flatulence and more or less violent explosions of gas and scybalæ. In some cases he was obliged to use what he calls the ascending rectal douche, or injections of the water, which is highly impregnated with gas. Thus all the indications were fulfilled, the water, gas, and fæces were forced first to ascend, and then to descend; and were finally expelled from the patient's body, to his great relief and comfort.

Quarantine at Baltimore was established May 1st. All vessels, except from United States ports north of Cape Henry, will have to be examined before entering the port.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., Editor.

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THE AMERICAN MEDICAL ASSOCIATION.

THE coming week will witness the meeting, in this city, of a large number of representative medical men from all parts of the country. The occasion will be a favorable one for the discussion of many subjects of great interest, and for the expression of opinions upon many topics of much importance. It is hardly a matter of doubt as to the general character of the meeting, and the influence for good which it will exert upon the profession at large. But the circumstances of the meeting, the attendance of so many eminent men, the presence of experts in every branch of medicine, and the earnestness with which most of these men do their work, suggest the possibility of even a wider range of usefulness for the Association than that which would pertain to the medical profession proper. In other words, the opportunity will be an excellent one for creating that better understanding between the physician and the people which is so necessary for the benefit of both. The daily press will be ready with its powerful influence for good to inform the public of the work done in the different sessions, and more than the ordinary interest will be manifested in medical matters in general.

The responsibility, always a great one, of conducting the meeting properly, will be doubly so in the coming session, not only on account of the goodly number of delegates and members who will be present, but on account of the large audiences outside. It is safe to assume that the profession of the country will be well represented by the delegates who attend the meeting, and that the general business of the Association will be conducted in that spirit of harmony which has so notably characterized its proceedings for the last few years. The only possible chance of there being anything to the contrary may be the introduction of the question of teaching homœopathic students. We have alluded, on a previous occasion, to the true merits of this question, and take occasion now to say that neither the Association nor the profession can afford to discuss it in anything but the most liberal spirit. The cause of legitimate medicine will not suffer if the proposed amendment to the by-law is still kept upon the table. Certain it is that the adoption of the proposition would destroy much of the real influence of the Association for good, and would be very prejudicial against many of its best directed efforts to elevate medicine to the true dignity of a broad and progressive science.

As to the purely scientific work of the Association there will doubtless be a good showing. The selection and arrangement of subjects are in good hands, and the time will be well spent in their presentation and discussion. In the scientific, as well as the purely business part of the meeting, it would be well for the members to consider that they have the responsibility of representing their profession to the public, and that they should do and act accordingly. Working with such an understanding and actuated by such a principle, it is impossible to say what influence for good the Association may not exert upon the public mind. We have repeatedly said that the vocation of the physician is something more than a mere prescriber for the sick. His influence should extend beyond the precincts of the sick chamber or the hospital ward. The profession which he represents should rise to the higher privileges of educating the public, and should claim requisite respect for its opinion and advice. Such a representative body as the American Medical Association can do a great deal to such an end in speaking for the profession as a whole, and in placing it in its proper relation to the people and to the State.

It will be conceded by the majority of the members that little can be done to perfect the organization of the Association. It is true that its machinery is quite perfect and works very smoothly. Instead of being an arena for the ventilation of local quarrels for the settlement of disputes concerning ethical questions or for the discussion of purely personal matters, it has become a dignified scientific body, which disposes of all its detail work in the committee-room, and which devotes its time and energies to the cultivation of strictly scientific medicine. But it strikes us that some necessary improvements are still wanting in its management. Among the changes which can be made for the better are those which relate to the publication of the transactions of the Association.

We believe that the majority of the members agree with us that the yearly volume, as now published, does not meet the real wants of the Association. By a rule of the Association, no papers read at the meeting can appear in full except in the yearly volume. It is not difficult to prove that the appearance of such papers is very tardy, and their circulation

among the profession very small. It is hardly fair, for the mere sake of making the yearly volume a success in its small way, that the authors of papers therein should be denied the right of appealing to that large class of medical readers which can only be reached through the columns of the various medical journals of the country. The policy is suicidal for all parties, and some new one should take its place. The exclusiveness of publication as now carried on is unworthy the liberal design of the Association, and should be discontinued. Permission should be given to authors to publish their papers in any medical periodical they may think proper, with the privilege afterward of having them appear in the yearly Transactions. If the papers are valuable, so much the better reputation will they give for the volume when it appears. Again, authors knowing that such a privilege is granted them, will gladly come forward and contribute to the success of the meeting, which they would not think of doing under other circumstances.

Some influential members of the profession, who are interested in the success of the Association, have advised that the publication of the Transactions in book form be entirely suspended. In view of the fact that as yet there is nothing to take its place, this proposition is hardly practical. As an offset to this, however, it has been suggested that the Association have a journal of its own, which shall be the medium for all its publications. It is hardly possible that it will be able to carry out such a plan. To start a new medical periodical for the sole purpose of being an organ of the Association would be exceedingly difficult, and its circulation would hardly be much more than the present volume of Transactions. There would be no guarantee that it would be taken by the members merely because of the official transactions of the Association which it might contain. Except for that feature it would have no other claim upon the members than any ordinary medical journal. It would be quite impossible to select any established journal as the official organ of the Association, inasmuch as no such periodical would be ready and willing to sacrifice its independence for the mere privileges of publishing an official report, or for the opportunity of using the different papers read at the meeting. These papers and transactions, at least such as any conscientious editor would admit to his pages, would occupy but a few numbers, and the right of their publication would not weigh against the disadvantages of being under the control of a publication committee as to time and space. The safer and better way would appear to be to leave the choice of journals to the authors of the papers, and the publication of the transactions to such periodicals as chose to report them. This is a perfectly natural and easy way out of the difficulty, and one which will hardly fail to give general satisfaction.

THE GUY'S HOSPITAL CONTROVERSY.

We referred in our last issue to the appearance of an article in *The Nineteenth Century*, by Miss Lonsdale, defending the new system of nursing in general, and that attempted at Guy's Hospital in particular. In the succeeding number of the above journal three replies have appeared, written by Sir Wm. Gull, Dr. S. O. Habershon, and Dr. Arthur Henriques, respectively. Dr. Wm. Moxam has also written a fourth reply, which appears in *The Contemporary Review*. Altogether, the young lady must feel herself very much answered. These answers show, on the whole, only what we asserted last week, that the article by Miss Lonsdale was exaggerated, and, in most respects, unjust. Any special analysis of them would hardly prove interesting. Sir Wm. Gull discusses the question from a general point of view, and is as severe as he can be, with courtesy, toward his lady opponent. Dr. Habershon and Dr. Moxam go more into details, and specifically deny most of the points made by Miss Lonsdale. Dr. Henriques defends the London hospitals against certain aspersions in regard to the character of its nursing.

The articles are all of them forcibly written and make interesting reading for the doctors, and probably for Miss Lonsdale. They should not create the opinion, however, that the advocates of the new system of nursing are entirely in the wrong and have no justice on their side. Physicians on this side of the water know pretty well what the old style of hospital nurse was, and also what an addition to our hospitals the training-schools for nurses are. The opposition, though partial and qualified, which the present controversy in England has developed against the trained and educated nurse, is, on the whole, likely to produce a bad effect on the cause of good nursing, and is to be deplored on that account. But, however the question ends, it is to be hoped that it will be settled before long. Periodical literature has now had quite enough of the squabbles of a hospital and medical school, neither of which are of very serious significance either to humanity or medicine.

TRICHINOSIS IN BROOKLYN.

A suit was recently tried in Brooklyn involving the subject of trichinosis. A Mrs. Griefeldt, the plaintiff, was desirous of obtaining damages for the loss of her husband by that disease. The facts brought out were to the effect that on January 29, 1880, Mrs. Griefeldt, her husband, and two other members of the family, ate smoked and boiled ham, bought of a certain pork-packing establishment. On February 3d the members of the family began to be sick, complaining of abdominal pains and digestive disturbance. The symptoms were particularly severe in Mr. Griefeldt's case. In the course of a week muscular pains, cramps, swelling of the face and legs,

and a high fever set in. Shortly after this he died and trichinæ were found in his muscles at the autopsy. The number was not so great as in the other cases. Dr. Jos. H. Raymond found seven in a piece of muscle the size of a pea. The other members of the family were more or less severely sick.

The trial brought out a good deal of expert testimony. There were, however, no very notable contributions to the natural history of the disease, and the case has its chief interest in the legal question that was raised, as to who was responsible for the death of Mr. Cruickshilt, and in the question of the prophylaxis of the disease, trichinosis.

It was claimed by the plaintiff that the defendants were responsible for Mr. Cruickshilt's death, because they sold smoked ham which was diseased, and that such ham, if properly selected or cured, would have been harmless; it was claimed also that the court should take judicial notice of the latest discoveries in science; that raw, fresh animal food, free from parasites, is perfectly wholesome; that ordinary culinary operations will not destroy trichinæ, that eating trichinosed meat, even when the parasites are dead, is not safe; and that meats sold for domestic purposes are presumed to be sound and wholesome. In reference to this indictment we may say that some of the points are not true, while those that are true are not applicable to the case in question. It would be impossible to take a position upon such questions which would make pork-packers and pork-sellers, under present laws, responsible for the presence of trichinæ in the meat they sell. This fact the jury recognized, and returned a verdict for the defendants. There is but one sure and practicable way at present to lessen the danger of trichinosis, and that is to inform the people thoroughly in regard to it, and how pork should be treated to kill the dreaded parasite. We must teach the people; we cannot punish the pork-packer.

As regards further prophylaxis, the use of microscopes in pork-packing establishments is undoubtedly of value, but it cannot insure perfect freedom from the trichinæ, and is liable to beget a false security. It is probable that we may gain some protection when we know just how the trichinæ enter the swine originally. Here is a point where little has been done, because little is known. The evidence at the recent trial was purely negative, two experts testifying that they did not believe in the current theory that the trichinæ entered pigs through the latter eating rats and mice.

The present case comes in opportunely with those which have been recently discovered to have occurred on the school-ship *Cornwall*. The lesson from them both is, to beware of pork; danger lurks in it in increasing proportion according as it is boiled, roasted, broiled, smoked, or raw.

A MINISTER OF HEALTH FOR GREAT BRITAIN.

The medical profession of Great Britain has reason to congratulate itself upon the attainment of an object which it has long desired. The new Government, under Mr. Gladstone, has made the President of the Local Government Board a member of his Cabinet, thus creating a Department of Public Health. For this Local Government Board is the central authority which supervises all matters of public health and public charity throughout the kingdom. Vital statistics, compulsory vaccination, medical relief of paupers, and all public hygienic measures come under its administration. There has been heretofore much difficulty and embarrassment in the work of the central board, owing to the fact that its chief officer was only the head of a bureau and had but little real authority. The elevation to the rank of a cabinet officer will add dignity and authority to the new department. It cannot fail to draw more attention to questions of State medicine, and increase the importance attached to the work and recommendations of the medical profession in that direction.

Reviews and Notices of Books.

THE VENEREAL DISEASES, INCLUDING STRICTURE OF THE MALE URETHRA. By E. L. KEYES, A.M., M.D., Professor of Dermatology and adjunct Professor of Surgery in the Bellevue Hospital Medical College; one of the Surgeons to Bellevue Hospital, etc. New York: William Wood & Co., 27 Great Jones Street. 1880. Pp. 318.

This volume is the first number of Wood's Library of Standard Medical Authors, for 1880, and, if it is a "sample brick," speaks well for the value of the series for this year. The volume is divided into three parts, namely: I. Chancroid; II. Syphilis; III. Gonorrhœa and its complications. The first section, that on chancroids, takes up the first 52 pages. The second, occupying 200 pages, gives the history, modes of transmission, the diagnosis and treatment of syphilis. This subject is treated more in detail than any of the others, and our author's aim evidently has been to make this section as full and perfect as his space would allow. The use of mercury is advocated in "tonic doses" throughout the whole course of treatment. He expresses his preference for the proto-iodide given in the following manner: he commences with a standard dose of one-sixth of a grain (granular), one after each meal for two or three days. On the fourth day one extra standard dose is added at the mid-day meal. This is continued for three days, and on the fourth succeeding day another standard dose is added, and on the following fourth day another. In this way the amount of mercury is gradually increased until some of its physiological effects are produced. This he considers a "full dose." If this is continued, the patient will soon suffer both in the stomach and in the quality of his blood, while his strength will fail. The "full dose" is only to be used in case of necessity. A "tonic dose" is one half or even one-third of a "full dose," and on this the patient should be kept

during the whole course of treatment, except that it may be increased to a "full dose" when the occasion requires. The illustrations in this portion of the book, from photographs of skin lesions in syphilis, furnished by Dr. Geo. H. Fox, add much to the value of the book, although more care in the plates would not have detracted from their value. The views of the author on the treatment of stricture are so well known that they require but brief mention. His rule seems to be that, for non-resilient strictures of large calibre, that is, those that will admit a No. X. English sound in the pendulous urethra dilatation should be employed; and for resilient internal urethrotomy should be resorted to. For strictures in the deep portion of the urethra, gradual dilatation "should be the rule, all operative measures the exception." Perhaps this is rather too general a statement, and will be criticised by some; yet, if it be an error, it is on the safe side.

To appreciate the amount of labor that has been expended on this volume, and the practical and thorough manner in which the whole subject of venereal diseases has been treated, it must be read. And in closing this short notice we can but congratulate both the author on his success, and the publishers in having issued so valuable a work as the first volume of Wood's Library of Standard Medical Authors for 1880.

A Treatise on Foreign Bodies in Surgical Practice. By Alfred Poulet, M.D, Adjutant Surgeon-Major, Inspector of the School for Military Medicine at Val-de-Grâce. Two volumes. New York: William Wood & Co., 27 Great Jones Street. 1880.

The author states in his preface that "no surgeon has hitherto thought of collecting in one book all the material scattered throughout the annals of science, concerning the question of foreign bodies, and yet there are few subjects which are more worthy of attracting the serious attention of practitioners. He has collected from the many treatises and journals, both old and recent, all cases in which foreign bodies have been found in the different organs of the body. These have been analyzed, and only such have been introduced into the text as from their rarity are of interest, or that illustrate the topic under consideration. It is not a book that one can review; we can only point out its arrangement, and refer to the amount of matter that these two volumes contain. After some general remarks on "Foreign Bodies in General," in which they are defined and classified, he lays down the general rule of treatment. He then takes up foreign bodies in the pharynx, œsophagus, stomach, intestines, and rectum: these occupy the first volume.

The second volume begins with those in the air-passages, and is followed by sections on those in the genito-urinary organs, both male and female, in the ear, nasal fossæ, in the glandular canal, and Wharton's duct. Under each head the different substances that may be found are enumerated—their behavior, symptoms, general and special, the danger to which they give rise, and their treatment. It is perhaps unnecessary to say that our author covers the ground very completely, and that his work contains all that is known on foreign bodies in surgery. It is an exhaustive work, and will no doubt add much to the value of Wood's Library of Standard Authors, of which these form the second and third volumes.

A Handbook of Physical Diagnosis, comprising the Throat, Thorax, and Abdomen. By Dr. Paul Guttman, Privat Docent in Medicine, University of Berlin. Translated from the third German edition, by Alex. Napier, M.D., Fel. Fac. Phys. and Surg., Glasgow. With a colored plate, and eighty-nine fine wood engravings. New York: William Wood & Co., 27 Great Jones Street. 1880. Pp. 344.

This, the third volume of Wood's Library, has been well received, not only in Germany, but it has been translated into Italian, Russian, Spanish, and French. It has evidently been found to fill a want in Continental Europe, and a careful perusal of its pages will demonstrate its value as a handbook of physical diagnosis.

Under each topic the different modes of examination are given, and the conditions met with in health and disease fully and clearly described. The article on Examination of the Lungs takes up the greater portion of the work. As the work does not aim at being theoretical, only such descriptions are given as are of universal acceptation, so there is but little to criticise. The volume contains quite a number of illustrations of different instruments that are used as aids to diagnosis, and some anatomical plates.

The Essentials of Anatomy: designed as a Text-Book for Students. By William Darling, M.D., F.R.C.S., and Ambrose L. Ranney, A.M., M.D. New York: G. P. Putnam's Sons. 1880. 8vo, pp. 629.

To the student and practitioner this work has a taking title. Its aim is to hold a middle place between the smaller manuals and the more elaborate treatises on anatomy. While it may seem somewhat discouraging to the novice to know that a volume of over six hundred pages is required to give what may be considered the mere essentials of anatomy, the work is none too large for its purpose. It is difficult to give an adequate idea of the scope of the work, so different is it from others on the subject. The arrangement of the subjects, their detailed treatment, and the methods of memorizing different points, are peculiar to the authors, and are the results of long experience in the teaching of students. There is, in fact, an individuality about the work, which gives it a peculiar value to the student and practitioner. Prof. Darling's forte in teaching is his power of memorizing by associations, and in view of the end at which he aims, it is pardonable if he occasionally overreaches the mark. Thus, it must be allowed that in some instances it is more difficult to recollect the associations upon which the memorizing is founded, than to trust to abstract memory itself. Still it gives the student an idea as to the means which can be taken by him to recollect the relations of parts by associations which he can make for himself.

As a collateral aid to this method of memorizing, several diagrammatic representations are introduced. Some of these are very good, but others will prove somewhat confusing to the student who has no other illustrations of the subject. Especially is this true when it is taken into account that these diagrams are the only illustrations to be found throughout the work. We cannot help feeling that this is a great detriment to the work as a whole, in so far that in such a respect the book lacks the necessary completeness of a work of its kind. In teaching anatomy, illustration is everything. No memorizing, nor analysis, no diagrammatic representations can take its place. We say thus much of the defect of the work, more in the way of regret than fault-finding, inasmuch as with the addition of the requisite number of illustrations it would rank as a leading text-book,

and would, in the widest acceptation of the term, be one containing the essentials of anatomy.

The work, as a whole, is so thoroughly original in its arrangement, that we have studied it with much interest and pleasure. The authors have a remarkable faculty of bringing out the salient points of their subject of arranging the different sections in such a natural manner as to invite a thorough and complete analysis of their different divisions. In fact, in perusing the book, we study the science of anatomy from a new standpoint, and what would otherwise be dry and uninteresting, is made inviting and profitable.

The volume is divided into five parts, viz.: osteology, arthrology, myology, angiology, neurology, and splanchnology. Each of these divisions is treated as a whole, and is, as far as the purposes of the book will allow, complete in itself.

The work is tersely written, the style, for the most part, is simple and perspicuous, and the descriptions clear and intelligible.

Reports of Societies.

THE NEW YORK STATE PHARMACEUTICAL ASSOCIATION.

Second Annual Meeting, held in the City of Syracuse, May 19 and 20, 1880.

(Special Report for THE MEDICAL RECORD.)

WEDNESDAY, MAY 19TH—FIRST DAY—MORNING SESSION.

THE Association met in Chase's Musical Hall, and was called to order at 11 A.M., by the President, PROF. P. W. BEDFORD, of New York, with congratulatory remarks.

On motion by MR. C. K. BROWN, of Deposit, the reading of the minutes was omitted.

THE PRESIDENT then introduced HON. FRANCIS HENDRICKS, mayor of the city, who extended a welcome to the members of the Association.

DR. H. D. DIDAMA, of Syracuse, was then introduced, and, in behalf of the medical fraternity of the city, welcomed the members of the Association, *first*, because they were the members of an ancient and honorable fraternity; *second*, because at one time pharmaceutists belonged to the tribe of doctors; and *third*, because, whatever their forefathers and innumerable grandfathers did, they were no longer mere venders of nostrums and drugs of whose composition and nature they knew nothing.

MR. CHARLES HUBBARD, of Syracuse, in behalf of the drug fraternity, then gave the Association a most hearty welcome, after which the President responded to the address by the Mayor. Dr. A. B. Huested, of Albany, responded to the address by Dr. Didama, and closed with the following resolution, which was unanimously adopted:

Resolved, That this Association extends a cordial invitation to the physicians of Syracuse and vicinity, to the Professors of the Syracuse University, and to Prof. H. A. Englehardt, of the Salt Works, to attend the second annual meeting, and that they receive the full courtesies of the floor.

MR. W. P. DE FOREST, of Brooklyn, then responded to the address of welcome made by Mr. Hubbard.

THE PRESIDENT then announced several invitations to visit places of interest, which were accepted by the Association, with thanks.

THE PRESIDENT then delivered his Annual Report, in which he reviewed the history of the Association, and referred to the prosperity of like organizations in other States. He then referred to the proceedings of the last National Convention for the revision of the United States Pharmacopœia; urged the members of the New York State Pharmaceutical Association to become members of the American Pharmaceutical Association; and then spoke of the desirability of a pharmacy law for the State of New York; first, of its necessity; second, of its [illegible] and third, of its absolute separation from political [illegible]. Some changes in the by-laws were recommended, and the propriety of sending delegates to the American Pharmaceutical Association was suggested.

He then announced the death of two members: Dr David John Hollis Chubbuck, of Binghamton; and Mr Hermann Hugo Metz, of New York.

On motion by DR. A. B. HUESTED, of Albany, the thanks of the Association were extended to the President for his comprehensive address, a copy requested for publication, and a committee of three appointed to report upon the suggestions it contained.

The committee consisted of Dr A. B. Huested of Albany; Mr W. H. Battelle, of Rochester; and Mr. J. G. Miller, of Gloversville.

On motion by MR. F. K. SWEET, of Lockport, telegrams of congratulations were sent to Pharmaceutical Associations in session in Kentucky, Ohio, and New Jersey.

MR. L. E. NICOT, Chairman of the Executive Committee, then read the names of the applicants for membership, ninety-two in number.

Several reports were then read by title, after which the Association adjourned to meet at 2 P.M.

FIRST DAY—AFTERNOON SESSION.

The Association was called to order at 2.30 P.M., by the President.

The minutes of the morning session were read by the Assistant Secretary, MR. CLAY W. HOLMES, of Elmira, and adopted.

The Secretary then read the names of those recommended by the Executive Committee for membership, and they were unanimously elected.

The Chairman of the Executive Committee then read the names of twenty-two additional applicants for membership.

The Secretary, MR. CHARLES H. GAUS, of Albany, read his report, which showed that two hundred and seventeen members were admitted during the last year, and that certificates of membership had been issued to one hundred and thirty-eight members. The report was adopted.

MR L. E. NICOT, of Brooklyn, read the report of the Executive Committee, which was accepted and adopted.

REPORT OF COMMITTEE ON TRADE INTERESTS.

MR. A. J. INLOES, of Binghamton, presented the report of the committee, in which special reference was made to the use of *printed prescription blanks* by druggists. The tenor of the report was strongly against such practice, and in favor of *plain paper*, without a letter of print indicating what the name of the druggist was by whom it was furnished, or the physician who used it. Although the report contained no special recommendation, its sentiment was

approved of by the Association without dissenting vote, and the report of the committee was unanimously adopted.

Mr. William Blakie, of Utica, presented his report as delegate to the twenty-seventh annual meeting of the American Pharmaceutical Association, held in Indianapolis, September 9, 1879. The report was adopted.

Mr. W. P. De Forest, of Brooklyn, read the report of the Committee on Pharmacy and Queries, which was received and adopted.

The President announced the receipt of a congratulatory telegram from the New Jersey Pharmaceutical Association, in session at Jersey City.

The following

OFFICERS FOR THE ENSUING YEAR

were then elected:

President, Prof. P. W. Bedford of New York; 1st Vice-President, Dr. G. M. Baker of Brooklyn; 2d Vice-President, Mr. Frank Hamilton of Syracuse; 3d Vice-President, Mr. H. B. Napier of Owego; Secretary, Mr. Clay W. Holmes of Elmira; Treasurer, William Blakie of Utica. Executive Committee: Mr. W. L. Brown of Syracuse, Chairman; Mr. C. Z. Otis of Binghamton, and Mr. F. L. Norton of Delhi.

The President announced the receipt of a congratulatory telegram from Dr. J. E. Judge, President of the Ohio State Pharmaceutical Association, in which it was stated, that 145 applications for membership in that Association had already been made.

The Chairman of the Executive Committee announced three additional applications for membership.

The President, on motion, appointed as Committee on Exhibit:

Mr. C. J. Powers of Syracuse, Mr. J. M. Cool of Palmyra, and Mr. E. C. Billings of Smyrna.

Owing to the absence of Mr. J. G. Miller, Mr. C. H. Haskins was substituted on the Committee on the President's Address.

The Association then adjourned to meet at 7.30 P.M.

First Day—Evening Session.

The Association was called to order at 7.30 P.M. by the President, and the minutes of the afternoon session were read and approved.

The Association then elected the following gentlemen as

DELEGATES TO THE AMERICAN PHARMACEUTICAL ASSOCIATION.

Mr. L. E. Nicot of Brooklyn, Mr. C. J. Powers and Mr. W. L. Brown of Syracuse, Mr. A. J. Inloes of Binghamton, and Mr. C. H. Gaus of Albany.

Mr. R. W. Gardner, of New York, offered as an

AMENDMENT TO THE CONSTITUTION

that the Annual Meeting be held on the *fourth* Wednesday and Thursday of May. Laid over for one year under the rule.

The Chairman of the Committee on the President's Address, reported amendments to the Constitution and By-Laws, such as would, if adopted, make them accord with the suggestions offered by the President in his Annual Report. They were laid over under the rule.

Mr. J. T. Watson, of Clinton, brought up the question of

THE CUTTING OF PRICES,

and spoke of the causes, the results, and the means of prevention.

The subject gave rise to considerable remark, but no action was taken by the Association.

Dr. G. M. Baker, of Brooklyn, asked for an interpretation of the words "practice of pharmacy," as found in Sec. 2, of Art. III. of the Constitution.

There was a free interchange of opinion without definite result being reached. After which the Association adjourned to meet at 9 A.M. on Thursday.

Thursday, May 20th—Second Day—Morning Session.

The Association was called to order at 9.20 A.M. by the President, and the minutes of the last session were read and approved.

The Chairman of the Executive Committee reported the names of fifty-two candidates and recommended them for election to membership. All were elected.

THE PROPOSED PHARMACY LAW

being the special order of business, Mr. H. B. Napier, of Owego, of the Committee on Pharmacy Law, read the proposed law, and after some amendments, it was adopted by the Association.

[The law has seventeen sections and two schedules.]

The President announced the following committees:

Committee on Trade Interests: Mr. G. H. Arnold of Cortland, Mr. J. W. Howarth of Utica, and Mr. H. A. Bourne of Poughkeepsie.

Committee on Pharmacy and Queries: Mr. R. K. Smithers of Buffalo, Mr. G. H. Haas of Rochester, and Mr. Louis Hunt of Auburn.

Committee on Pharmacy Law: Mr. Henry B. Napier of Owego, Mr. Julius Rieffenstahl of Buffalo, Mr. B. F. Ray of Utica, Dr. G. M. Baker of Brooklyn, and Mr. W. L. Brown of Syracuse.

The Executive Committee reported in favor of holding the next *Annual Meeting* in the city of Buffalo.

The report was adopted.

On motion, the Association elected by ballot Mr. R. K. Smithers, of Buffalo, as Assistant Secretary.

The following

AMENDMENTS TO THE BY-LAWS

were then brought up by Dr. Huested, of Albany, and adopted by the Association.

In place of Article XV., the following: "The Association invites manufacturers and others to exhibit at the annual meeting, crude drugs, chemicals, pharmaceutical preparations, chemical and pharmaceutical apparatuses, and such objects as possess a general scientific or special pharmaceutical interest; proprietary and patented medicines and medicinal preparations, the complete working formula for which is withheld, and such preparations as are offered under other than their proper scientifically recognized names, will not be received.

For Article XVI. the following as the order of business:

1. Reading of the Minutes; 2. Address of the President; 3, Application for Membership; 4. Election of Members; 5. Reports of Officers and Committees; 6. Miscellaneous Business; 7. Reading of Communications; 8. Election of Officers.

The Association then adjourned to meet at 5 P.M.

SECOND DAY—AFTERNOON SESSION.

The Association met and was called to order at 2.20 P.M. by Mr. RIEFFENSTAHL, of Buffalo.

On motion, Mr. DE FOREST, of Brooklyn, was elected President, *pro tem.*

The minutes of the last session were read, corrected, and adopted.

On motion, Mr. Rieffenstahl and Mr. Gardner were appointed as a Committee to conduct the newly elected officers to the platform.

The By-laws were then suspended, and Mr. Reuben A. Defendorf, of Phœnix, was elected a member of the Association.

Mr. DE FOREST made a supplementary report from the Committee on Pharmacy and Queries.

Mr. F. K. SWEET, of Lockport, then read a paper

ON THE PROPER RELATIONS BETWEEN PRESCRIBER AND THE DISPENSER OF DRUGS AND MEDICINE.

The position taken by the author was that the dispenser was not a prescriber, and that he could not do so without violating the courtesy due the medical profession.

The position of the pharmaceutist was that of a co-worker in the labor of saving human life, and alleviating human suffering, and a help to a superior profession.

Mr. E. G. BISSELL, of Waterville, read a paper

ON THE METHOD OF PREPARING SYRUP OF IPECAC.

The process recommended was to mix the fluid extract with water, and allow the mixture to stand until all the portion insoluble in water has subsided. Then filter, washing the precipitate in the filter with hot water; then dissolve the requisite amount of sugar in the aqueous solution.

Mr. C. W. HOLMES, of Elmira, referred to a process which had given him a perfect product, and which he gave in a paper read before the American Pharmaceutical Association, in 1874. The difference between it and that offered by Mr. Bissell was that the latter stage of the process was done by percolation. Place the sugar in a funnel, the apex of which is closely stopped with a sponge, and, having filtered the solution of ipecac, pour it upon the sugar and allow it to percolate.

The By-laws were suspended, and Mr Charles W. Spingler, of Weedsport, was elected a member of the Association.

The Report of the Committee on Exhibits was then presented by M. C. J. Powers, of Syracuse, after which several resolutions were adopted, extending the thanks of the Association to all who had given it greeting and hospitality during its stay in Syracuse.

The secretary announced that 120 new members had been elected during the present meeting, and on motion, the Association was declared, by the President, adjourned, to meet in the city of Buffalo on the third Wednesday and Thursday of May, 1881.

THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Thirty-First Annual Meeting held at Altoona, Penn., May 19, 20, and 21, 1880.

DR. ANDREW NEBINGER, OF PHILADELPHIA, PRESIDENT, IN THE CHAIR.

(Special report for THE MEDICAL RECORD.)

THE thirty-first annual meeting of this Society was held in Altoona on May 19th, 20th, and 21st, with ANDREW NEBINGER, M.D., of Philadelphia, President, or WM. B. ULRICH, of Chester, First Vice President, occupying the chair during the sessions.

The proceedings consisted of general business relating to matters of interest to the Society; reports of various officers and committees; annual addresses on obstetrics, surgery, mental disorders, and hygiene; and voluntary papers on scientific subjects relating to medical science. The usual excursions and receptions were extended to the members of the Society by the Blair County Medical Society.

GENERAL BUSINESS.

The address of welcome was delivered by DR. ROWAN CLARK, after which the Committee on Credentials and the Corresponding Secretary presented their reports. The reports of the various county medical societies were referred to the Publication Committee without being read. DR. W. B. ATKINSON, Chairman of the Committee on State Board of Health, reported progress, and the committee was continued. The report on Medical Legislation was read by DR. R. L. SIMMETT, chairman, and stated many well known facts in regard to the sale of medical diplomas; but the report, though very lengthy, did not solve the problem which has been handled so unsuccessfully by previous committees. DR. JOHN CURWEN then presented the Report on Epilepsy and Insanity, which was received and ordered to be recorded. The remainder of the general business concerned amendments to the constitution, regulations respecting the preliminary examination of prospective students of medicine by committees appointed by the county societies, and regulations regarding the status of members.

ANNUAL ADDRESSES.

The Address on Medicine was omitted on account of the absence of DR. THOS. SHAW, the appointee. The address of DR. JOHN T. CARPENTER, of Pottsville, entitled "History of the Rise and Progress of the Obstetric Art in Pennsylvania," showed the disfavor in which obstetrics was held by the profession of the last century, and how the efforts of Bond, Duffield, James, Dewees, Meigs, Hodge, and Atlee established it as one of the recognized essential branches in the college curriculum. The author expressed the hope that the time was near when gynecology would almost cease to exist as a department of medicine, because of the perfection to which the obstetric art would reach.

DR. JOHN H. PACKARD'S address on Surgery gave a review of the progress of surgery during the year; considering the subject under these heads: Anæsthetics, Ophthalmic Surgery and Therapeutics, Surgical Appliances, Surgical Pathology, Surgical Achievements, and Antiseptic Surgery. The address on Mental Disorders was a lengthy, statistical paper, showing careful investigation by DR. ISAAC N. KERLIN, of Media. DR. BENJAMIN LEE'S address on Hygiene treated of the importance of having an official inspector of drainage and plumbing in all cities where underground drainage was employed, and suggested a bill to be presented to the State Legislature looking toward the adoption of some such law to protect the lives of citizens of the commonwealth. The PRESIDENT'S address discussed the well-worn subject of Medical Education, and informed the public of Altoona how ignorant many of the graduates of the medical schools may be, though possessing a legitimate diploma.

Unfortunately, these annual addresses allow their authors little opportunity for preventing original scientific matter, and consequently contain but little

novelty. In fact, year after year, the authors are compelled to write extremely long papers in order to accomplish the introduction of a sufficient number of facts to interest the Society.

There were presented sixteen voluntary papers, but owing to the time occupied by the general business, and the annual addresses, these were for the most part read in abstracts.

New Remedies in the Local Treatment of Skin Diseases,

was the title of a paper by Dr. J. V. Shoemaker. The two remedies discussed were oleic iodoform and oil of ergot. The former is made by dissolving iodoform in oleic acid (gr. xxiv. ad. f ʒ i.), and is better than iodoform dissolved in its ordinary solvents, because it has less disagreeable odor. This preparation does not become rancid, is economical, does not stain the clothing, and enhances the therapeutic value of the iodoform. It should be applied with a brush, and acts as a stimulant, astringent, and disinfectant. It has been used with advantage in scrofulous diseases of the skin, fetid ulcers, carbuncles, psoriasis of the scalp, and in functional diseases of the sweat-glands. It may be combined with the oleate of mercury, and is then of benefit in syphilitic affections, especially of the mucous membranes, and may be employed as a parasiticide in favus, pityriasis, and kindred affections.

Oil of ergot is a refuse material left after the manufacture of the ergot preparations; and probably has not been used previously as a topical remedy. Its action is soothing and astringent, and is therefore adapted to cases of acute eczema, cracked nipples, herpes of the genitals, and seborrhœa of the scalp. It has also been employed advantageously in nasal catarrh, leucorrhœa, and gonorrhœa.

Specimens Illustrating Results after Excision of Joints, with Remarks on the Treatment of Joint-Diseases.

Dr. William H. Pancoast, presented a paper with the above title. The specimens were obtained from patients who, months previously, had been subjected to excision for disease of the articular extremities of the bones. One was a hip, the other a shoulder-joint, and both established the fact that a sort of capsule may be developed around the false joint. These results encourage the surgeon in operating upon such cases.

Reference was made to the fact that, though extension gives rest to diseased joints, it may do harm by reflex irritation when too much weight is added to the limb.

Improved Urethrotome.

Dr. Pancoast also exhibited an improved urethrotome, modelled on the principle of Syme's staff for perineal section. The staff is tunnelled, and also contains a blade for cutting the stricture. It is used by passing a filiform bougie through the contracted urethra, the staff is then slipped over this, when the blade is projected and the urethra incised.

Clinical Observations on the Radical Treatment of Fibroid Tumors of the Uterus.

Dr. William Gooddell presented a paper on this subject. After mentioning the treatment by ergot, hypodermically or by the mouth, and that by a combination of ergot and chloride of ammonium—which should always be the therapeutic means first employed—the author referred to the surgical treatment.

The tumor may at times be seized with fenestrated forceps, which are better than the volsella forceps, and removed by the wire écraseur. This is the process of evulsion. When the os is dilatable the surgeon may enucleate if the tumor is in a favorable locality for manipulation.

These operations should not be attempted immediately preceding menstruation. If hemorrhage occur during the operative procedure, it may be arrested by vinegar, or even by sulphate of iron—though this last is to be avoided when possible. When the tumor is high up and deeply imbedded, the capsule should be incised with Adam's subcutaneous osteotomy saw, and ergot given to cause extrusion. If sloughing occurs, the surgeon must use disinfectant solutions to prevent septicæmia. In a few cases laparotomy is required to give access to the growths, and to give the patient a chance of recovery.

Hyperdistention of the Air-Cells as a Therapeutic Measure,

was a subject reported on by Dr. J. Solis Cohen. By means of an ordinary rubber bulb and tube, with a valve, air is forced into the lungs of the patient by himself. He first takes a deep inspiration, and then holds his nostrils with one hand while he pumps air through the mouth into the trachea and lungs with the other. This inspiration of compressed air, as it may be called, gives greater distention of the cells than can be obtained by voluntary respiratory efforts; but is contraindicated in atheroma, tendency to hemorrhage, etc. It is employed with advantage in incipient phthisis, asthma, chronic bronchitis, and hypostatic pneumonia, and acts as a mechanical expectorant by getting a sufficient volume of air behind the muco-purulent masses to effect dislodgment on slight coughing. Care should be observed not to exert too great pressure, which may, however, be accurately measured if a complicated inspiratory pump be employed. In using the simple apparatus, the judgment of the patient must be depended upon.

Practical Remarks on the Treatment of Asthma.

This paper, by Dr. Wm. Pepper, as well as the two previous ones, was only partially read because of the want of time Stress was laid upon the necessity of recognizing the cause of the asthmatic symptoms, and upon making a distinction between the treatment of the paroxysm and that of the condition. In general the patients come under one of two heads—the plethoric or the anæmic.

It is necessary to restore the tone of the cutaneous and muscular systems by bathing, friction, inunction, and light gymnastics. To relieve the congestion of the liver, if there be any, and to improve the condition of the digestion by regulation of diet, are essentials of treatment.

Blue mass or other laxatives may be required in those of plethoric habit, while quinine, strychnia, and muriatic acid may be indicated in the anæmic. Dry cups may at times do good services. An attempt must be made to prevent the occurrence of bronchitic congestion, for which purpose iodide of potassium and alkalies should be given in certain selected cases. Strychnia has a beneficial influence upon the bronchial tubes.

Alterative expectorants may be of service, and the bromides will relieve perhaps the tendency to spasm, though they depress and should be given only occasionally. At times inhalations are to be employed.

The Construction and Advantage of a New Mechanical Appliance for the Treatment of Diseases of the Spine.

Dr. E. H. Coovers, the author of this paper, showed

the method of preparing a spinal jacket similar to Sayre's, but in which the hardening material is not that of ordinary plaster of Paris. The appliances shown were very light, and evidently well adapted for the purposes intended.

Conservative Surgery,

by Dr. S. M. Ross, was the next paper. Two patients who had been subjected to double amputation of the lower limbs were exhibited, and remarks were made as to the condition at the time of injury.

Anæsthesia in Labor, with the Exhibition of a New Inhaler,

was presented by Dr. D. M. Barr. The use of anæsthetics was advocated during parturition, and an inhaler, consisting of a collapsing funnel-like an umbrella, with a diaphragm of Canton flannel, was recommended.

The Bromide of Ethyl as an Anæsthetic in Practical Surgery.

This paper, by Dr. John B. Roberts, of Philadelphia, presented the various views in regard to the new anæsthetic, but recorded nothing new except the use of the agent in a case of severe angina pectoris, where either only seemed to excite the patient to violent struggling. The cause of death in the well-known case of Dr. J. Marion Sims was attributed to a brown, offensive distillate, now known to have existed in the earlier specimens of ethyl bromide manufactured.

Cinchona Alkaloids.

Dr. Benj. Lee read a paper on Cinchona Alkaloids. The great number of alkaloids derived from cinchona (eighteen primary and seven secondary) perhaps explains the reason that effects can sometimes be obtained from bark that do not follow the use of quinine. Some of the alkaloids now in use are, as a rule, recombinations of already separated principles; for example, hospital quinines, cincho-quinine, dextro-quinine. Other alkaloids are single in composition, while quin-quinia contains a number of alkaloids in varying proportions, though it is not an artificial compound. The value of these drugs has, in certain districts, been great, and they deserve consideration.

Some Points in Relation to Puerperal Septicæmia

was the title of a paper by Dr. W. H. Parish. Preference is given to the above name rather than to puerperal fever, because less likely to frighten the patient, and because giving some idea of the pathology of the condition. The relation of the poison to erysipelas, to surgical septicæmia, and to diphtheria was ably discussed. As to treatment, importance was attached to prophylaxis. The obstetrician was warned against carrying forceps for years in the same woollen bag.

The hot-water douche with carbolic acid was recommended as a uterine injection after labor. The temperature should be 112° F. This removes clots, and prevents post-partum hemorrhage. Abstraction of blood may be beneficial in the very incipiency of the disease, by relieving pelvic engorgement, but if done later it is liable to promote absorption of septic matter generated by decomposing clots.

Dr. J. L. Ziegler read a paper on

Carbuncular Inflammation of the Arms from Contact with the Liquor Amnii of a Dead Fœtus.

In a case of placenta previa the membranes were ruptured, and the liquor amnii gushed out, wetting the arms of the obstetrician. The child was dead and decomposed. Carbuncular inflammation, limited to the parts of the arms wetted, soon occurred, and was accompanied by chills and phenomena of septic poisoning. There were no abrasions of the arms. At the present time, six weeks from the inoculation, the ulcerated surfaces have not entirely cicatrized.

A Report of the Removal of a Large Sebaceous Tumor from the Breast,

by Dr. S. T. Dana, was read by title. Some remarks on the axis of the human foot, showing it to be a curved line, and demonstrating that the ordinary shoe is an orthopedic instrument, were made by Dr. B. Lee.

The following officers were elected for 1881:

President, Dr. J. P. Carpenter, of Schuylkill County. *Vice-Presidents*, Thomas Lyon, Lycoming; William Varner Crawford, C. A. Ralston, Dauphin; W. R. Cowden, Butler. *Secretary*, William B. Atkinson, Philadelphia. *Recording Secretary*, Alexander Craig, of Columbia. *Corresponding Secretary*, O. H. Allis, of Philadelphia. *Treasurer*, Benjamin Lee, of Philadelphia.

The delegates to represent the Society at the meeting of the American Medical Association are:

H. H. Smith, Philadelphia; A. B. Shaeffer, Mifflin; James Oglesby, Montour; F. Ross, Clarion; L. G. Mayer, Mercer; L. H. Gibbs, Lackawanna; P. B. Barnes, Northampton; J. P. Burchfield, Clearfield; T. H. Hobby, Lycoming; J. McMichael, Butler; L. De B. Kuhn, Berks.

The annual addresses of next year are to be delivered as follows:

Address in Medicine, Dr. J. S. Cohen, of Philadelphia. *Address in Surgery*, Dr. S. M. Ross, of Altoona. *Address in Obstetrics*, Dr. S. C. Davis, of Lancaster. *Address in Hygiene*, Dr. Benjamin Lee, of Philadelphia. *Address in Mental Disorders*, Dr. S. S. Schultz, of Danville.

The Society adjourned to meet in Lancaster, in May, 1881.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

Annual Meeting, held at Milwaukee, May 4 and 5, 1880.

(Special report for The Medical Record.)

The Thirty-fourth Annual Session of the State Medical Society of Wisconsin was held at Milwaukee, commencing May 4th.

the president's address.

Dr. J. G. Meachem, Sen., delivered the annual address, on "Honor to Medical Men."

The profession has always held a prominent place in all beneficent and charitable works. Hospitals, asylums, etc., owe their existence in many cases, their continued usefulness in almost every case, to the labor, often unappreciated and unrewarded, of medical men. To them is due in great part the increased longevity of the race, so often remarked upon within the last century. The heroism with which physicians face imminent danger and inevitable death has been proven again and again; while such courage is accepted by the public at large as a matter of course, is unnoticed and unrecompensed, honors and wealth without stint are heaped upon a successful pedestrian. The address favored a more frequent interchange of thought among physicians, more and closer association for such interchange, and a greater elevation of the standard of education both among members of the profession and among those who

aspired to become students, and the exclusion of all illiterate and unqualified pretenders.

ANTISEPTIC SURGERY—THE SPRAY-PRODUCER CONDEMNED.

Dr. Marks, from the Committee on Surgery, read a paper on Antiseptic Surgery, in which he discussed Lister's theory of the revitalization of carbolized animal tissues when used as ligatures. Dr. M. believes that Lister's methods constitute a marked advance in surgical practice, and that statistics show a greater proportion of recoveries since the introduction of those methods, though there may be room for doubt as to whether this increase is due wholly to them or to the better style of dressing which has followed them. While giving all due merit to the antiseptic spray in such operations as ovariotomy, the writer thought that, in amputations of the thigh for example, much better results would be obtained if care was exercised in the subsequent dressing, even without the use of the atomizer, than could be looked for if the atomizer were employed and the after-care dispensed with. Dr. Marks had employed carbolized deer-tendons in over one hundred operations, the largest vessel tied being the femoral artery, and had never known them to fail.

ANTISEPTIC LIGATURES.

Some discussion followed the reading of the above report, chiefly upon the question of revitalization of animal tissues, the majority of the speakers inclining to think that no such thing could occur; that the value of the ligatures in question consisted in the power of the surrounding tissues to absorb them and dispose of them without irritation.

FRACTURE OF THE RIM OF THE ACETABULUM.

Dr. Senn read an able and exhaustive paper on Fracture of the Rim of the Acetabulum, based on the reports of twenty-seven cases and on experiments on the cadaver.

The conclusion reached by the author was that fractures were of more frequent occurrence through the floor of the acetabulum than simple fractures of the rim, and that the mortality is chiefly due to accompanying visceral lesions.

Dr. Pritchard read an interesting paper on Fracture of the Superior Maxillary.

Profs. Jenks, Fitch, and Jones, of Chicago, were introduced to the Society at this point of the proceedings, and invited to participate therein.

THE PROPHYLACTIC TREATMENT OF DIPHTHERIA.

Dr. Griffin read a paper on Diphtheria, in the course of which he urged upon the Society the eminent propriety of impressing upon the minds of the laity the intensely contagious character of the disease. He illustrated this by recounting some facts obtained during an investigation made at the city of New London, Wis., where contagion was traced from case to case in so many instances as to set the matter beyond all possible doubt. Dr. G. suggested the propriety of greater attention to prophylaxis, arguing that remedies which were known to be powerful in treating the disease upon its appearance ought to have some power in preventing it from getting a foothold; he believed that very much might be done in this direction, and advised that the attempt should be made. He himself had adopted the plan of giving those exposed to diphtheria chlorate of potash and tinct. ferri chlorid. three times daily, and believed that he had prevented outbreaks in this way. Whether he was right or not, it was only by careful and conscientious experiments of this kind, and not by denouncing theories as "bosh and nonsense," that truth could be ascertained. His treatment of the disease resolved itself into quinine, iron, chlorate of potash, and alcoholic stimulants.

Dr. Hall urged the importance of using alcoholic stimulants early and freely in the disease, and illustrated his position by detailing cases thus treated with success.

Dr. Vivian indorsed the idea of prophylaxis put forward by Dr. Griffin; he believed that he had prevented the spread of the disease by the employment of chlorate potass., iron, and quinine, in very many cases.

Dr Butler gave an account of an epidemic of diphtheria which occurred in the town of Lima thirty-six years ago. A schoolhouse was located in a rich farming district, its site being high and dry and the building well ventilated. Diphtheria broke out, no one knew how, and in three weeks carried off sixty-one out of sixty three of the scholars in attendance. Such frightful mortality attracted attention, and every crack was searched for a cause, but without success. Other cases were narrated in which the malady seemed to set all logic and all reason at defiance. With regard to prophylaxis, the speaker thought that anything which strengthens the physical system—fresh air, suitable exercise, proper diet, etc.—might be called prophylactic; while anything which lowered the general tone predisposed to diphtheria, or any other disease which happened to be prevalent. He doubted that we knew very much about diphtheria—it seemed to refuse hitherto to be corralled—but thought Dr. Griffin's idea worth taking up and following out carefully. He believed, moreover, that a point worthy of the closest attention was the influence of one poison in neutralizing or exalting the action of another, and instanced, in illustration, cases in which membranous poison had seemed to act as a preventive of malarious croup, and where sewer-gas had greatly increased the malignancy of cholera.

Dr. Griffin desired to add to what he had already said, that where diphtheria made its appearance among the better class of people, it would often be found that, while the front of the house was kept scrupulously clean, the backyard was very often far from being so; that even tolerably intelligent people were as ignorant of the danger arising from decomposing vegetable and other matter in the backyard and cellar as are the most poverty stricken and uneducated; that, in investigating the cause of the disease where everything looked fair and cleanly in front of the house, critical and exhaustive examination of the cellar and backyard was needful, and would often reveal a wholly unsuspected and surprising state of affairs sufficient to account for diphtheria or any other malignant form of disease. Did the gentleman who reported the fearful mortality of sixty-one cases out of sixty-three think that such a calamity could fall upon any community without there being some active local cause therefor?

Dr. Butler replied that he was too young, when the case in question occurred, to take part in the investigation, having been but just admitted to practice; but he believed that the investigation had been honestly and thoroughly made, with all the light obtainable from a case occurring but a short time before, in which the death of an eminent citizen had been clearly shown to be due to such an accumulation of filth in the cellar as Dr. Griffin had referred

to. He could truly say that no local cause was discovered. Parents who rose on Monday morning surrounded by their seven children, went to bed childless on the following Saturday night.

Dr. Manley wanted to say that some of the younger members of the profession might have the misfortune to fight diphtheria in epidemic form in the future. To any such he would make one suggestion: sporadic cases of the disease were generally easily managed but when an epidemic comes and the young practitioner finds his usual remedies failing him, and his patients dying off as though some poisonous serpent had bitten them, he is apt to become demoralized, to drop his safe practice, and look around for some new means of treatment, too often in vain. My advice is, don't do it; stand to your business and keep on with your quinine, iron, and whiskey, and you will do better than in any other way known as yet. With whiskey I have had but little experience; I have found quinine answer my purpose well; I begin with 20 grs for an adult, and give little beside, except chlorate potass. and iron.

Dr. Reynolds desired to hear from some one who favored local treatment in diphtheria. He himself had formerly been inclined to depend upon it, but had gradually changed his views and come to regard the constitutional treatment as the only one to be relied upon. Since Ziemssen's Cyclopedia has been introduced into this country there has been a revival of the idea of local treatment to some extent, and we have chlorinated soda and a hundred other things, all fanciful, as I believe, urged upon the attention of the profession. I want to hear this local treatment discussed.

Other members followed, generally favoring constitutional treatment. Dr. Griffin desired to enforce the idea that unsanitary surroundings were important factors in the production of the disease. Dr. Vivian, while not undervaluing sanitary precautions, was unable to conclude that they had much effect on the disease, or that their neglect did much toward producing it.

Dr. Hall gave an account of an outbreak which originated in a house apparently clean and well situated, but where the timbers were in a state of decay and the whole building water-soaked. From this case the disease spread through the medium of the district school, and took on a malignant form in several cases. He had found the best and most successful treatment to be the exhibition of calomel in tolerably large doses, aided, if necessary, by castor-oil. When the bowels had been thoroughly moved he used stimulants and tonics. If sanitary conditions had no effect whatever in preventing the disease, it was a curious coincidence, to say the least, that it should so often occur where these were bad.

THE MANAGEMENT OF UNNATURAL LABORS.

At the afternoon session, the discussion of obstetrics being in order, Profs. Fitch and Jenks, of Chicago, were specially invited, as experts in that branch, to take part.

Dr. Hunt presented a paper on Uterine Hemorrhage. There is no branch of practice of greater importance than that of obstetrics, and few cases give the young practitioner more anxiety than those connected therewith. Many a young man has labored under disadvantages which have acted against him for years, springing originally from lack of skill in conducting his first half-dozen obstetric cases. All females are liable to abort to a greater or less extent during the child-bearing period, and the general practitioner is frequently called upon to manage cases of this character. Death from this cause is comparatively infrequent, nature, in a large proportion of cases, without aid from art, stops the flow of blood and saves the patient's life. But cases do occur in which the powers of nature prove insufficient for the work, and the resources of art must be called upon to save life. When called upon in such an emergency our first question must be, Is the fœtus living or dead, and if living can the flow be arrested and the pregnancy carried on to its full term with safety to the mother? This question is not easily answered during the earlier part of gestation, but later on the viability of the fœtus can be ascertained with a great degree of certainty; where, however, any doubt remains we are bound to proceed on the more favorable assumption, and direct our efforts toward the salvation of both lives. Our sheet-anchor is absolute rest and treatment by opiates in large doses. The patient should be at once put to bed, and opiates administered freely from the outset, otherwise valuable time will be lost. In addition to rest and opiates, cold applications to the abdomen and even within the vagina are powerful adjuvants in arresting the flow of blood.

Retention of the placenta at full term may cause hemorrhage, and occasion the death of the mother. No patient can be considered safe while the placenta remains in the uterus after the birth of the child, and the man would be guilty of gross negligence who should allow it to remain longer than an hour or an hour and a half; for all experience has shown that after that time the unaided power of nature will not suffice for its expulsion.

An adherent placenta is a common cause of hemorrhage. Under these circumstances it is our duty to administer a powerful stimulant at once if there has been profuse hemorrhage, or if the patient shows any sign of weakness; with one hand grasp the abdominal walls, or make firm pressure over the uterus, and with the other, passed into the womb up by the side of the placenta, break up any adhesions that may exist between it and the uterine walls.

HEMORRHAGE FROM PLACENTA PRÆVIA.

The time at which we may expect bleeding in this case varies with the position of the placenta; the higher up it is placed on the uterine walls the later in gestation will the uterine flow take place. We possess no means of making a correct diagnosis in these cases, and the patient remains ignorant of her great danger until warned of it by a sudden gush of blood. When convinced of the nature of the case with which we have to deal we should endeavor to save both mother and child, but the life of the mother should be our first consideration. We must enjoin absolute rest of both body and mind, calm the fears of our patient, administer a large opiate, and apply cold and even iced water to the abdomen and even within the vagina. Should the flow not be arrested by these means, the vagina must be thoroughly and completely packed with cotton wool, or similar material, saturated with alum water or some other powerful astringent. After the first attack we should keep our patient as quiet as possible, and inform her or her friends that there will be probably similar attacks before delivery. Having stayed the flow for the time being, when the moment of delivery arrives we must face the danger boldly or retire from the field.

In accidental hemorrhage the fœtus is in the nor-

mal position, and the placenta in its proper place, but, owing to some accident, some injury, the placenta becomes detached from the uterine walls, and hemorrhage follows. In treating this form several things must be considered. If pregnancy be not too far advanced, we should endeavor to stop the flow, while, on the other hand, if our patient be in the eighth or ninth month, it will be good practice to administer ergot. Should the flow continue in quantity to endanger life, we must rupture the membranes and deliver as speedily as possible.

UTERINE HEMORRHAGE.

Prof. Fitch said: With regard to the principal part of the treatment laid down, I don't know that I have any criticism to make. I think, however, that the writer does not go far enough. He does not mention some of the most important means for relieving the hemorrhage occurring in abortion. Opium is often not well borne; it creates nausea and vomiting, and thus causes a pressure which has a tendency to dilate the os, thereby favoring the expulsion of the ovum. When abortion is inevitable, the question arises, What is the best means of conducting it? When the flow has been great, and the life of the mother is in danger, the use of the tampon is one of the most important measures to be employed. Usually I employ dry cotton batting, which I allow to remain in position about twelve hours, the patient meanwhile remaining recumbent with the head low and the hips elevated. Of course, this tamponing should never be done unless we are satisfied that the loss of the ovum is inevitable. I know that the use of ice is recommended, both externally and internally, but I must offer my evidence against the practice. I believe the exposure of the patient to this degree of cold and dampness cannot be other than injurious, and that the reaction may render her final recovery doubtful. I believe in keeping the patient as dry as possible, and have little confidence in the use of ice in any way. I would rather trust to the gradual dilatation of the os uteri by the use of the tampon, or by the pressure exerted upon it by the oozing of the blood. I make it a point, when the os is sufficiently dilated, to introduce the placental forceps and deliver the placenta, or the ovum, or whatever may be there, as rapidly as possible, and give at the same time ergot sufficient to produce strong contractions. I have used ergot for many years, and, where I have used a good preparation, I have never had unfavorable results.

I do not believe in the propriety of allowing the placenta to remain in the womb long after delivery. I think it bad practice. I never allow it, and I have not had a case of hour glass contraction for twenty years, and very few excessive or dangerous hemorrhages. I give my undivided attention to the uterus until after the placenta is delivered, and never leave the patient for a moment until this is effected. Waiting five or ten minutes after the birth of the child, in order to allow the uterus some rest after its hard labor, I stimulate it to contraction by pressure upon it through the abdominal walls, making traction upon the cord at the same time. I know that this is dangerous doctrine to preach to young men who are without experience. They may tear off the cord, and thus have no guide to the placenta itself; but I do not remember that I have ever torn a cord, and it need never be done when one has gained a little experience, and considerable force may be exerted too. I have tested to see how much traction I have been in the habit of making, and have found it to be about six pounds. I have used traction to the degree of six pounds many times without injury to the cord or without tearing it off. This traction should never be made, however, during the relaxation of the uterus—only at such times as it is firmly contracting; and if, moreover, any depression of the fundus is perceived, which may readily be done by means of the little finger which rests upon it, all traction should cease at once.

Papers upon Infantile Paralysis, The Use of the Forceps in Pelvic Contraction, The Presentation of the Funis, and On Hemorrhoids, were read.

A CURIOUS FRACTURE OF SKULL AND FACE.

Dr. Palmer gave a verbal description of the Burr Robbins case as follows: Mr. Robbins's injuries were received Jan. 17, 1880, by coming into collision with a bridge while standing upon a small steamboat which was moving very rapidly. His head was caught between the timbers of the bridge and the flange of the boiler, which was an upright one. The bones of the skull were crushed in; the frontal bone was separated along the course of the sutures, longitudinally and transversely, and raised out in front as far as the tissues would permit; without being torn they were put upon the stretch so that the bone could be raised and lowered like the lid of a box over a space of about two inches. The temporal bone was depressed—crushed in, about an inch and a half back of the eye, and the bone forming the upper part of the orbit of both eyes crushed into fragments, as were also the nasal bones. The temporal bone was so badly crushed that a large portion was removed, with the bone at the outer angle of the eye, the upper floor of the orbit, the partition between the eyes, and the nasal bone on one side. The bones on the opposite side were adjusted as accurately as possible. There was a fracture of the malar bone extending down toward the throat, and the upper jaw was broken loose, and knocked over toward the left side about one-quarter of an inch, so that the whole jaw might be moved to and fro laterally to that extent. There was also a fracture at the back of the head and a scalp wound of about three and one-half inches in extent. The amount of bone removed was about three and one-half square inches in area. The brain was lifted out of its resting place about half an inch, and one of the internal temporal arteries was torn across. Of course, it seemed as though such injuries must prove fatal almost instantly. Although the patient was a man of remarkable vitality and power, he was at the point of dying about half an hour after the accident. The marked peculiarity of the case was the retention of consciousness by the sufferer. While his wounds were being dressed he gave directions about his business, made his will, and adjusted all his affairs as if nothing were the matter. The only loss of consciousness occurred while a sponge wet with cold water was applied to the surface of the brain. When the pressure was made he would cease talking, and the instant it was removed he would resume at the point where he left off. He has suffered more from the injury to the upper jaw than from the damage to the brain. At present he can use either eye separately, but there is a loss of co-ordinating power which prevents the use of both together. He is in very good physical condition and fair mental power; says that he can attend to his business and give general directions, but tires quickly.

Dr. Vivian also gave details of an interesting case in which the skull of a child had been crushed in by the kick of a horse, and in which there was no loss of

consciousness at any time except when under the influence of chloroform for the removal of the lens.

Several interesting pathological specimens were presented to the Society. The subject of annual banquets was discussed, some members favoring them, others deeming them injurious to the welfare of the Society.

Dr Mackie, of Markesan, was elected President for the ensuing year, and Dr J. T. Reeve, of Appleton, Secretary and Treasurer, Vice-Presidents, Drs Reynolds and Marston.

The Committee on Medical Legislation reported that an attempt had been made to secure the passage through the legislature of a bill for regulating the Practice of Medicine during the preceding winter, but that the effort had resulted in entire failure.

The Society adjourned to meet at Milwaukee in 1881.

Correspondence.

THE ALLEGED CURE OF CATARACT BY ELECTRICITY.

To the Editor of The Medical Record.

SIR:—We have read Dr. Neftel's communication in your issue of May 22d. The discrepancies between the doctor's statements and ours are due to his relying too much upon subjective symptoms. The diagnosis of cataract can only be made by the medical observer *looking into* the patient's eyes. To accept the statements of patients in regard to their maladies, or as to what other physicians have said or done, without subjecting them to the ordeal of logical analysis, would make an end of all progress and safety in the practice of medicine.

The facts of the case are given in our communication printed in the Record of May 15th, page 552. For the benefit of those whom it may concern, we here reiterate them.

The patient was examined at our office on July 24, 1878. We found that she had incipient cataract in both eyes, more advanced in the left than in the right. We found that her vision for distant objects, without glasses, was, in each eye, only one-tenth the normal. On correcting her error of refraction with glasses of the proper strength, her vision was as good as that of the average normal eye. She was able to read fine print with each eye, with the proper spectacles. Two days later, according to Dr. Neftel's statement, she placed herself under his care and received galvanic treatment, extending through some weeks.

On October 22d she came to our office again and was examined, and the note was made in our record: "no apparent change since last visit." This, of course, could only mean that there were still opacities in her crystalline lenses, probably of a non-progressive character. Her eyes were examined a third time on April 15, 1880, less than two years later, and lenticular opacities were found still to persist, though the acuteness of vision did not seem to have become impaired.

This proves to our minds, most conclusively, that her cataract had not been cured.

C. R. Agnew, M.D.
D. Webster, M.D.

To the Editor of The Medical Record.

SIR:—In answer to Dr. Knapp's letter in the last issue of the Medical Record, concerning the case of Mrs H. B. W., I gave the following particulars:

I saw the patient for the first time June 9, 1879. The improvement of her vision commenced about two years previously, and at the time she came to me she complained of being unable to distinguish any features, or even to see distinctly her own fingers. In the course of a few weeks, under the galvanic treatment, she became able to read even small print and see objects quite distinctly. At the end of the treatment the patient said: "Tell me candidly if I ever had cataract, or was there a mistake in the diagnosis, as I can see everything as well at present." I wrote down these words, of which the lady has a recollection. This result obtained under the galvanic treatment is certainly remarkable, especially as the same has been obtained in other patients. If this case appeared "with so much *eclat* in the *Church-man*," it is because the patient gave to the editor of that journal a glowing account of her condition after the galvanic treatment.

However I decline the details of the method in *Virchow's Archiv*, and will patiently wait until other investigators obtain the same results. Brenner's classical researches on the effects of the galvanic current upon the auditory apparatus were also met with great scepticism, and at first were flatly contradicted by authorities in otology, some even alleging to have repeated his experiments with perfectly negative results. Nevertheless, at present, Brenner's views are accepted by the profession, and I hope the same will ultimately be the case with my researches upon the optic apparatus.

Wm. B. Neftel, M.D.

New York, May 22, 1880.

THE USE OF CHLOROFORM.

To the Editor of The Medical Record.

SIR:—In the Record of May 8th I notice a suggestion of Dr. C. W. Robbins that the National Medical Association pass resolutions condemning the use of *chloroform as an anæsthetic*. While not believing that such a proposition would for a moment be entertained, I beg to raise my voice against the action of many of our profession in decrying the most valuable anæsthetic we yet have, as producing unfavorable impressions on the minds of the people, and often deterring us from the use of an invaluable agent. But a few days since, I had a comminuted fracture of the lower maxilla in a child brought to me, which previously two physicians had unsuccessfully attempted to put up without an anæsthetic, as they had discovered "heart affection that precluded its use." Their failure to obtain apposition was due entirely, I believe, to the exquisite pain produced in manipulation and the struggles of the child. With seventeen years' experience with chloroform, and in many hundred cases, I have yet to see my first accident from it, and I have pretty much ceased to regard heart or functional troubles as contraindicating its use. In cases where prolonged anæsthesia is necessary, I usually introduce *ether* at intervals, with happy effects on the circulation and respiration, returning to chloroform when I find the patient regaining sensibility. This has been a much more satisfactory method than administering mixtures of chloroform and ether, and if there is a danger of paralysis occurring from over saturation with chloroform, it can in this way be avoided. The sad expe-

rience of Sir A. Cooper, from hemorrhage after pulling that *tooth* (*vide* works on surgery), has perhaps deterred some from the indiscriminate use of the forceps, but, as a class, we still extract molars when they ache,' and so I hope we may be permitted to use chloroform till some other more safe and efficacious anæsthetic is discovered.

I remain yours very truly,

M. F. Leary, M.D.

Gaylord, Kansas.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 16 to May 22, 1880.

Surgeons J. B. Brown, J. H. Bill, C. H. Alden, and J. S. Billings, to represent the Med. Dept. of the Army at annual meeting of Amer. Med. Assoc., N. Y. City, June 1, 1880. S. O. 107, A. G. O., May 14, 1880.

Vollum, E. P., Major and Surgeon. When relieved to report in person to Comd'g Gen'l, Dept. of the East, for assignment to duty. S. O. 107, A. G. O., May 14, 1880.

Byrne, C. C., Major and Surgeon. Relieved from duty in Dept. of Dakota and to report in person to Comd'g Gen'l, Div. Pacific and Dept. Cal., for assignment to duty in Dept. of California. S. O. 107, C. S., A. G. O.

Happersett, J. C. G., Major and Surgeon. Relieved from duty in Dept. of the East and to report to Comd'g Gen'l, Dept. of Texas, for assignment to duty. S. O. 107, C. S., A. G. O.

De Hanne, J. V., Capt. and Asst. Surgeon. Relieved from duty in Dept. of Texas, and to report by letter to Surg. Gen'l. S. O., 107, C. S , A. G. O.

McElderry, H., Capt. and Asst. Surgeon. Upon withdrawal of troops from camp on White River, Col., to accompany them to R. R. and then repair to Ft. D. A. Russell, Wyo. T., and report for temporary duty at that post. S. O. 42, Dept. of the Platte, May 12, 1880.

Lauderdale, J. V., Capt. and Asst. Surgeon. Granted leave of absence for four months with permission to go beyond sea. S. O. 111, A. G. O., May 19, 1880.

Matthews, W., Capt. and Asst. Surgeon. Relieved from duty in Dept. of California to proceed to N. Y. City, and report arrival to Surg. Gen'l. S. O. 107, C. S., A. G. O.

Byrne, C. B., Capt. and Asst. Surgeon. To report in person May 30, 1880, to Comd'g Gen'l, Dept. of the South, for assignment to duty. S. O. 107, C. S., A. G. O.

Hall, W. R., 1st Lieut. and Asst. Surgeon. To report in person to Comd'g Gen'l, Dept. of the Missouri, for assignment to duty. S. O. 107, C. S., A. G. O.

Tesson, L. S., 1st Lieut. and Asst. Surgeon. Assigned to temporary duty at Cavalry Depot, Jefferson B'ks, Mo., relieving Surgeon E. P. Vollum. S. O. 107, C. S., A. G. O.

Randolph, Jno. F., Major and Surgeon. Died at Philadelphia, Pa., May 14, 1880.

Yeomans, Aug. A., Capt. and Asst. Surgeon. Died at Toronto, Canada, May 19, 1880.

Medical Items and News.

Contagious Diseases — Weekly Statement. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 22, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
May 15, 1880.	0	10	42	5	118	47	1	0
May 22, 1880.	0	7	41	7	85	45	0	0

Floating Hospital for Memphis.—A marine hospital is wanted at Memphis, and needed there as well. We have a suggestion to make on this subject, to this effect: let the hospital authorities have constructed a floating hospital, built on an iron scow, say 300 feet long and 60 feet beam, and from 8 to 10 feet depth of hold. On this structure can be built a strong, substantial, hospital building, two stories in height. The advantages of this floating hospital, which would be moored to the river bank, would be that it would cost less to construct and keep in repair than a shore hospital, and no land need be purchased on which to place a hospital. It could be removed, in case of a yellow fever epidemic, to a less exposed place, and in the event of a great public emergency, could be made available for a general hospital.—*Nautical Gazette.*

A bill has passed the House of Representatives, appropriating $30,000 to construct a hospital at Memphis.

Beer as a Remedial Agent.—Dr. Jesse Ewell, Jr., in the *Monthly Review of Medicine and Pharmacy*, describes, with much fervor, the good effects of beer in hæmaturia from renal calculi. He had been a sufferer from this himself for several years, and had tried all kinds of medicines without getting any benefit. He was subject to attacks of pain over the left kidney, occasionally amounting to genuine colic; once he had passed a small stone. There was blood in the urine when the attacks came on. At the suggestion of Prof. J. E. Lindsay, who had known beer to act favorably in other similar cases, he tried that beverage; the relief was very prompt and complete. Now, if he has any attacks of pain, a glass or two of beer will relieve it in five minutes.

Aspiration of the Knee-Joint, by Henry O. Marcy, A.M., M.D. Reprinted from Transactions of the American Medical Association, 1879. We have here presented the results of the study of seventy cases of aspiration of the knee-joint, together with the opinions of a large number of surgeons to whom Dr. Marcy directed circulars of inquiry. The conclusions are quite contrary to those usually received, for it is shown that the best results of aspiration follow in acute inflammatory and traumatic cases. In these cases the teaching should be to aspirate and reaspirate as often as the fluid accumulates, aiding by rest, compression and fixation of the joint.

Adulterations in a New Sugar.—The manufacture of a new kind of sugar by a secret process has excited much attention again to the question of the adulterations of this article. The City Board of

Health is now engaged in examining various kinds and grades of sugars for the purpose of obtaining exact knowledge on the subject, and it will doubtless furnish facts that will be decisive as to how much harmful adulteration there really is. Meanwhile, there is a good deal of talk and protest concerning the deceitfulness of the so-called "new process sugar." This sugar is made by mixing very carefully refined grape-sugar with various grades of ordinary cane-sugar. As the grape-sugar is perfectly white, it of course gives a finer appearance to the dark sugars with which it is mixed, and, as it costs only four or five cents a pound, considerable profit can be made. The grape-sugar is made out of corn, sulphuric acid being used in the process. As prepared by the "new process," it is white, dry, very finely grained, and not so sweet as cane-sugar. The only objection that can be made against it is that sulphuric acid and gypsum are liable to become mixed with it in its manufacture. Such adulteration, however, if it exists, is in too small amount to be of any harm. The same may be said of the alleged adulterations of other sugars. It is very doubtful if the Board of Health finds anything to alarm housekeepers as the result of their investigations.

THE NEW STATE BOARD OF HEALTH.—The bill creating a State Board of Health has become a law, and the members are already appointed. These are Dr. Elisha Harris, John S. Delavan, and Erastus Brooks. As representatives of City Boards already existing, the Governor has appointed Dr. Charles F. Chandler, of New York, Dr. James G. Hunt, of Utica, and Dr Edward M Moore, of Rochester. The other three members are the Attorney-General, the Superintendent of the State Survey, and the Health Officer of the Port of New York.

THE DIPPER-SHAPED EAR-TRUMPET.—Dr. Knapp writes that the dipper-shaped ear-trumpet, with the invention of which our reviewer had credited him (MEDICAL RECORD, May 15th), is an old instrument, and that its inventor is unknown.

AMERICAN ACADEMY OF MEDICINE.—There will be a meeting of the council of the American Academy of Medicine at 33 West Thirty-second Street, May 31st, at 8 P.M., when applications for fellowship will be in order.

THE LATE DR. F. J. BUMSTEAD.—In our last report of the New York Academy of Medicine, it should have been stated that an obituary notice of the late Dr. Freeman J. Bumstead was read by Dr. George A. Peters.

DEATH RETURNS up to June 1st, are expected of physicians by the census office.

LEMON MERINGUE PIE has again caused a number of cases of sickness, the symptoms being vomiting, diarrhœa, and intestinal pains. The material was cooked in a copper kettle, and citrate and acetates of copper were formed. This is the second case that has occurred in this city within a few months.

A COMMISSION TO INVESTIGATE THE STATE INSANE ASYLUMS has been appointed by the State Legislature. It consists of Senators Woodin, Baker, and Fowler.

THE SECOND ANNUAL MEETING OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION will be held at Delmonico's, New York City, on Monday, May 31st, Tuesday, June 1st, and Wednesday, June 2d, 1880, morning session from 10 to 1; afternoon session from 3 to 5.

THE RHODE ISLAND MEDICAL SOCIETY.—The annual meeting of the Rhode Island Medical Society will be held June 9, 1880.

EXTENT OF THE LUNG PLAGUE.—The report of Dr C. P. Lyman, recently made to the Connecticut Commissioner of Agriculture, shows that contagious pleuro-pneumonia now exists in one county of Connecticut, five counties of New York, fourteen counties of New Jersey, ten counties of Pennsylvania, four counties in Maryland. There are cases, also, in the District of Columbia and in Virginia.

TRACHEOTOMY HOOKS.—Dr. J. T. Crow, of Carrollton, Ill. sends us a model of a useful device for keeping patent the opening made by tracheotomy, without the use of a tube. It consists simply of a pair of hooks made of silver wire, and bent so as to grasp the two sides of the orifice. There are two cross-pieces to which elastic tapes are attached. These tapes pass around the neck, and, by tying them behind the opening into the trachea, can be made to gape as much as is desired.

RUSH MEDICAL COLLEGE.—A concours for the position of "Clinical Adjunct to the Chair of Diseases of Children" will be held in Rush Medical College, commencing May 27, 1880. The duties of the gentleman filling the position will be to deliver one clinical lecture per week throughout the year, on the diseases of children. Application should be made to the undersigned, who will assign subjects. —JAMES H. ETHERIDGE, M.D., Secretary.

DEATH OF DR. S. B. BRINKERHOFF, OF SANTA BARBARA, CALIFORNIA.—Dr. S. B. Brinkerhoff, of Santa Barbara, died suddenly, March 25th, of apoplexy. He was born in Auburn, New York, and was a graduate of the Buffalo Medical University. He afterward removed to Mansfield, Ohio, where he practised his profession, devoting himself faithfully to his calling, and winning for himself a place in the foremost ranks of his medical associates. He has a brother, General Brinkerhoff, who is still a resident of Mansfield, and who did good service for his country in the late war, while his uncle, Judge Brinkerhoff, of Ohio, is a man who is well known throughout the country for his learning, integrity, and knowledge of the law. Dr. Brinkerhoff went to Santa Barbara in 1852, and was one of the first physicians in his county.

DR. ROTHE'S TRACHEAL DILATOR.—The name of the author of the letter in a recent issue (No. 15) describing a tracheal dilator, should be *Rothe* instead of *Rolhe*.

BROMIDE OF ETHYL IN OBSTETRIC PRACTICE.—Dr. H. L. Getz, of Marshalltown, Ia., writes that he has used bromide of ethyl with very satisfactory results, in obstetric practice.

BOOKS RECEIVED.

THE BLACK ARTS IN MEDICINE. By JOHN D. JACKSON, A.M., M.D. Edited by L. S. McMurtry, A.M., M.D. Cincinnati: Robert Clarke & Co. 1880.

WOOD'S LIBRARY. No. V. TROUSSEAU AND PIDOUX'S THERAPEUTICS, Vol. I. New York: William Wood & Co. 1880.

HEALTHY LIFE AND HEALTHY HOMES. By GEO. WILSON, A.M., M.D., etc. Philadelphia: Presley Blakiston. 1880.

PHARMACOPŒIA OF THE BRITISH HOSPITAL FOR DISEASES OF SKIN. Second edition. London: J. A. Churchill. 1880.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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New York, June 5, 1880.

THE AMERICAN MEDICAL ASSOCIATION.

The thirty-first annual meeting of the American Medical Association was held in this city, commencing June 1, 1880. By a reference to the full report to which the present enlarged number is devoted, the amount and character of the work done during the different sessions can be estimated. The number of delegates and members was larger than any other similar meeting since the war, and was fairly representative of every part of the United States. The Committee of Arrangements, through Drs. T. G. Thomas, M. A. Pallen, Walter R. Gillette, and others, was very successful in its efforts to systematize the workings of the general session and of the various sections, and proved what could be done when the real wants of the Association as to business management are properly understood. The prompt publication each day of an elaborate programme was an entirely new feature, and establishes a worthy precedent for similar committees in future.

The Reception Committee did everything that could have been expected of it in providing entertainment for the large number present at the meeting. The affair at the Academy of Medicine was managed with a taste and skill which reflected the highest credit upon the Chairman of the Committee, Dr. Pardee, as well as upon his numerous associates. The entertainment at Booth's Theatre was also a success, although a larger number of tickets were issued than the actual capacity of the house would warrant. The receptions on Thursday evening were also duly appreciated by the guests, while the grand excursion on Friday afternoon, given by Messrs. William Wood & Co., brought the purely social element of the sessions to a fitting climax.

Having said thus much of the success of one element of the meeting, we are perhaps the better prepared in all charity to criticize the really scientific value of the proceedings. Notwithstanding the large number present, the full attendance at all the general sessions, and at the meetings of the various sections, the actual work of the Association was much below the usual standard. The various addresses delivered by the chairmen of the sections fell far short of what they should have been. Instead of giving a comprehensive review of the progress made in the different departments of medicine during the past year, the orators contented themselves by treating of one or two subjects merely. The only real merit of these addresses was their comparative brevity.

The papers before the various sections were, with a few notable exceptions, much below the par of usual society material. The redeeming features of their presentation were the discussions which they invited. In several instances papers were presented which had been read and re-read before different medical societies in this city, and elsewhere. These, like everything else in the way of communications, were formally referred to the Committee of Publication, with the understanding that they are to appear in the volume of the Transactions. We admit that it is quite necessary that there should be a suitable receptacle for such material.

The establishment of a new section, that on diseases of children, was a bright spot in the doings of the Association. The good work which this new organization has done has already proved the necessity of its establishment. The change in the by-laws affecting prize essays was properly made, as also that referring to the representation of the Marine Hospital Service.

The President showed in his annual address his appreciation of the real aim of the Association, and made some very practical suggestions as to increasing its usefulness and extending its good influences. The idea of establishing a journal for the Association, although not a new one, was very forcibly put. The necessity for abolishing the volume of Transactions, and substituting therefor a weekly organ, was so clearly demonstrated that few of those who have an interest in the success of the Association will have any doubt on the subject. In fact, there is such a strong feeling in its favor that the establishment of such a periodical must be only a question of time. There is no disguising the fact that there is a great deal of dissatisfaction regarding the present method of publishing the volume, and that some change will soon be made in that direction, even if the Association is not prepared to adopt at once the suggestion of Dr. Sayre.

We believe that the Medical Record has demonstrated what an official journal of the Association could do by the prompt and full publication of the proceedings, not only of the general sessions, but of the different sections. During the meeting we were enabled to issue daily editions of the Medical Record

containing the complete reports of all the meetings held the day previous. How thoroughly this work was done can be appreciated by a reference to such reports collected from the different daily issues and published in the present number. This number gives the complete report of everything that was done. Not only is every paper which was read before the section daily considered, but there is a full and correct of all the different discussions held.

It is, perhaps, safe to say that never before in the history of medicine has the daily issue of a medical journal been made to cover before each succeeding and exhaustive scientific reports been published in any daily periodical. In this connection it is with the greatest pleasure that we take occasion to acknowledge the valuable services of the following members of our staff, who have labored day and night to make the daily edition a success. Although it may not be in good taste to praise the members of one's family, we feel warranted in saying that there is no medical journal in the country that can bring together so much talent and so much capacity for efficient work than such as are found on the staff of the RECORD. If the work in the present number does not prove this, we are ready to continue our argument. It is, perhaps, unnecessary to do more in this connection than to mention those members of the staff who have so successfully labored to prove the possibilities of medical journalism. Dr Wesley M. Carpenter reported the meetings of the general session, while the reports of the different sections were made as follows: The Section on Practical Medicine by Dr. Chas. L. Dana; the Section on Surgery by Dr. E. C. Wendt; the Section on Obstetrics by Dr. P. Brynberg Porter; the Section on Ophthalmology by Dr. E. S. Peck; the Section on State Medicine by Dr. Robert Campbell. We also tender our acknowledgments to Dr. Frank Woodbury, of Philadelphia, who, as Secretary of the Section on Diseases of Children, furnished the report of that body.

THE DAILY EDITIONS OF THE MEDICAL RECORD.

THE publication of daily issues of the MEDICAL RECORD, during the meeting of the Association, and the necessity of waiting until the last moment for the final proceedings of that body, have caused a slight delay in the publication of the present weekly issue. In view, however, of the fact that this number contains a complete report of the doings of the Association, and, in fact, gives a full abstract of the forthcoming volume of the Transactions, we have reason to believe that the end will justify the means.

THE PROGRESS OF SANITARY ORGANIZATION.

IN a statistical table published in the *Bulletin of the National Board of Health*, the present condition of sanitary organization throughout the country is very fully shown. An examination of this table shows there are at present twenty-three State and two hundred and thirty-two Local Health Boards besides the National Board. A comparison of the dates upon which these various Boards were organized reveals a very rapid yearly increase since 1870, and indicates that sanitary organizations are everywhere becoming a part of our institutions. We give the following table:

Years	State Health Boards	Local Health Boards
1874	1	2
1877	4	6
1878	4	21
1879	2	27
1880	2	89
Total since 1870, inclusive.	14	145

It will thus be seen that half of our State Boards of Health and nearly two-thirds of the Local Boards have been organized within the last three years. The number of local organizations is also rapidly increasing each year. We are not half through the year 1880, and already there are eighty-nine of these new Boards. It should be noted, however, that seventy-four of them are in the counties of Mississippi. Indeed, local organization has been most active among the Southern States during the past two years, while previously to that, this activity was chiefly in New England and the Middle States. Mississippi is now the most completely organized as regards sanitation of any State. Next to this, in the number of Health Boards, comes New York, which has nineteen, then Massachusetts, which has fifteen, then California with eleven, Illinois and Pennsylvania with ten, and Tennessee with nine.

Of the fourteen States which are still without any Health Board only three are on the Southern coast. These are Virginia, Florida, and Georgia. The last named State has an organization, but its legislature refuses, through some unaccountable stupidity, to appropriate any money for its support. Equally remarkable is the fact that Louisiana has but one Local Health Board, while its neighbor, Mississippi, has seventy-four. These coast States have about one hundred Local Boards in all, which is no more than their share, and not nearly so many as need to be established.

The statistics, however, give on the whole a very favorable showing. We can certainly expect much in the future, although health organizations are still comparatively few.

DOCTORS IN PARLIAMENT.—At the recent Parliamentary elections, Dr. Lyons was elected from Dublin, Dr. Cameron from Glasgow, and Dr. R. Farquharson from West Aberdeenshire.

American Medical Association.

THIRTY-FIRST ANNUAL MEETING,

Held in the City of New York, N. Y., June 1, 2, 3, and 4, 1880.

Tuesday, June 1—First Day.

The Association met in Association Hall, and was called to order at 11 A.M., by the President, Lewis A. Sayre, M.D., of New York, N. Y.

Prayer was offered by Rev. W. F. Morgan, D.D.

ADDRESS OF WELCOME.

Dr. T. Gaillard Thomas then welcomed the Members and Delegates of the Association to New York, and offered to them the hospitality of our homes. Sixteen years had passed since the Association last honored the city with a visit, and for a moment a pause was made to consider what those years had borne upon their wings. The struggle which at that time convulsed our land had given way to peace, and unity and concord had made glad the blessed land which we proudly called our home. Within the sixteen years many changes had taken place in the great metropolis, but none more evident than in that department upon which their affections, their best wishes, and their highest ambition were fixed. It would be the pleasure of the profession to exhibit to them, not the palaces in which New York bankers conducted the finances of the world, nor those in which her merchant princes carried on traffic which knew no limits but those of the earth, but it would be to show how those men housed and clothed the sick and needy, and to lead the Fellows until a pleasant fatigue overtook them through miles of well-appointed hospital wards, whose hygienic appointment would put to blush those of the stateliest palaces of European Kings, and convince, by incontestable evidence, how true, how loyal, and how sincere an appreciation of the science and art of medicine the representative city of America had acquired. It should, to-day, be known as the "city of noble charities," the home of healthy and vigorous science.

Dr. Thomas then spoke of the great progress which had been made, through the instrumentality of the printing press, the railroad, and the telegraph, which and which alone were what had rendered our civilization superior to that of any which had preceded the nineteenth century. Another grand result which these agencies had accomplished, was the general elevation of the professional tone throughout the world, and the medical profession represented by the American Medical Association might truthfully declare to the young men about to enter it, that the shibboleth of success was merit.

The end and object that brought the Association together was to emit and absorb thought, to give one another friendly greeting, and the hand-shake, and the kindly interchange of expression, and to advance the interests of a profession which most closely allied man to his Maker. Let it be hoped that the work done in the Association would lead those who tread in our steps to say, they met those who, like Ben-Adhem, loved their fellow-men, and strove earnestly in their cause. "In the name of the united profession of the city of New York and with outstretched hand and a glowing heart, I bid you welcome, thrice welcome to our home."

The Secretary, Dr. W. B. Atkinson, of Philadelphia, then read the list of names registered, 372 in number, and on motion by Dr. J. M. Toner, of Washington, they were confirmed.

Protests were entered with reference to registration of delegates from the United States Navy, and also against the registration of certain delegates from Allen County Medical Society, Indiana, both of which were referred to the Judicial Council.

THE PRESIDENT'S ADDRESS.

The President then delivered his address, of which the following is an abstract.

"*Gentlemen of the American Medical Association:*—Before entering upon the duties of the high office to which you have elected me, I wish to return you my sincere thanks for the distinguished honor thus conferred, and to pledge you that I will endeavor to discharge its duties to the best of my ability.

"No one can feel more keenly than I do my own incapacity properly to fill the distinguished position to which you have elected me, or more sincerely regret that some other member, more competent and more worthy of the honor, had not been elected in my place. But as your too partial friendship has thus elevated me to this position, I must appeal to your generosity to overlook all shortcomings, and shall rely upon your mutual aid to assist me in the discharge of the important duties thus imposed. Who can properly appreciate the immense value which this Association has already been to the medical profession throughout our whole country? Contemplate for a moment the difference in the *morale*, the devotion to scientific investigation, the mutual respect and good feeling between its members at the present time, and its condition when the Association was organized. At that time there were often envyings, jealousies and heart-burnings, fault-finding, and traduction; those who had achieved distinction were frequently slandered and abused by those who had not been so fortunate; the slightest imperfection of a professional brother was magnified into such undue proportions as completely to obscure any really good qualities or attainments which he might possess, and thus the whole profession was injured in the estimation of the public by the rivalries, bickerings, and jealousies that existed among its members. Now, each one seems so engaged in endeavoring to improve himself and elevate his own position in the profession, that he has no time to devote to studying his neighbor's faults, much less to accurately scrutinize and publicly herald his seeming defects. The science of medicine has been so much enlarged in all its different departments by the minute research now demanded, and by the great and rapid progress of many of its specialties, as to require that every moment of a man's time be occupied in the closest study if he would keep himself abreast with the daily improvements in our profession, and he who is thus occupied has no time to study the defects of others. By this constant effort to improve ourselves and advance our science, the tone of the whole profession is elevated, and we already see that medical men are more and more respected by the community at large.

"Let us review, briefly, what has been done by the profession in America for the improvement of medical and surgical science and the relief of suffering humanity. Some years ago, Sidney Smith, one of

England's most popular authors, said, in the *Edinburgh Review*, 'The Americans are a brave, industrious, and acute people, but they have hitherto made no approaches to the heroic, either in their morality or their character. During the thirty or forty years of their independence they have done absolutely nothing for the sciences, for the arts, for literature, or even for the statesmanlike studies of politics and political economy. . . . In the four quarters of the globe, who reads an American book? or goes to an American play? or looks upon an American picture or statue? What does the world yet owe to American physicians or surgeons? What new substances have their chemists discovered, or what old ones have they analysed? What new constellations have been discovered by the telescopes of Americans? What have they done in mathematics?' Who drinks out of American glasses or eats from American plates, or wears American coats or gowns, or sleeps in American blankets?'

"It seems to me that the Declaration of Independence, and the willingness of Americans to sacrifice their lives to obtain it, were acts of heroism equal to any recorded in history.

"The organization of government under constitutional law, which has yielded such results as were never before obtained, is an evidence of statesmanship, and of knowledge in political economy which has been seldom equalled and never surpassed.

"As to the question of American manufactures and the nations that use them, we can safely refer to the reports of our Chamber of Commerce, for a satisfactory answer. American science has no need to be ashamed of its Henry and its Morse, its Bache, Peirce, Newcomb, Draper, Dana, Marsh, Gray, Hall, and its adopted Agassiz. Nor, has the *American Journal of Science* anything to fear by comparison with its European contemporaries.

"But to the question, 'What does the world yet owe to American physicians and surgeons?' we will venture a more extended reply, although time permits us to refer only to a few of our professional achievements.

"First among the greatest boons ever conferred upon suffering humanity stands 'anæsthesia,' an American suggestion, and one that immortalizes the name of Morton. Who can ever estimate the value of this discovery? When we consider the fact that at every moment of time in some part of the civilized world hundreds, if not thousands, are receiving the benefits of this great discovery, the mind becomes overawed at the magnitude of the blessing, and even imagination fails to comprehend fully its benefits.

"Ovariotomy, another American contribution by the medical profession, has done probably as much toward saving life as any other surgical discovery in the nineteenth century. It was first practised in 1809 on Mrs. Crawford, in Danville, Kentucky, by Dr. Ephraim McDowell. At the present time it is acknowledged as a proper operation, and Dr. Peaslee said that 'in the United States and Great Britain alone ovariotomy has within the last thirty years directly contributed more than thirty thousand years of active life to woman, all of which would have been lost had ovariotomy never been performed.'

"In gynæcology the whole professional world cheerfully and gratefully acknowledges the original and valuable contributions of Sims, Thomas, Emmet, Peaslee, Atlee, Kimball, Taylor, Pallen, Dunlap, Minor, and others in this department.

"The new operation of litholapaxy, as performed and described by Dr. Bigelow, of Boston, is one of the greatest triumphs of modern surgery, and of which any American surgeon may justly feel proud.

"In conservative surgery we certainly compare most favorably with any other nation. In the mechanical treatment of diseases of the joints alone we are able to exhibit triumphs in surgery of which the American profession may well be proud.

"In the *Lancet* of February 14, 1880, Mr. Roderick Maclaren, M.D., Surgeon to the Cumberland Infirmary, in his presidential address to one of the branches of the British Medical Association, on 'The Advances in Surgery during the past Twenty Years,' says 'No account of the recent progress in surgery can justly omit the application of the principle of absolute rest to diseases of the vertebræ. . . . It is done by enclosing the body in a plaster of Paris jacket. Though only introduced into this country about two years ago, it has established itself as an *incontrovertible success*.' This is another triumph for American surgery, and is justly admitted, not only in England, but in all parts of the civilized world, and we feel that American surgery has a right to congratulate herself that she has contributed this great boon for the relief of human suffering.

"In laryngology we can certainly claim Green as a pioneer, and the facts he established are now acknowledged by the entire scientific world. The improvements made in this department of surgery by Cohen, Cutter, Bosworth, Elsberg, Lincoln, Lefferts, Robinson, and many others in this country, entitle us to favorable rank with other nations.

I believe I have enumerated enough to justify the statement that if the distinguished author before referred to were to write now, he would express sentiments very different from those contained in the above quotation. Not content, however, with what we have already achieved, let us still press onward, and, accepting the motto of this great State, constantly cry 'Excelsior.'"

The President then referred to the claims which the metric system had upon the Association and the profession, and then passed to the question of the

PUBLICATION OF TRANSACTIONS,

and presented the merits of two plans, the volume and the journal form. As an example of the journal form, reference was made to the *British Medical Journal* and the British Medical Association.

"The similarity of the two associations, in many respects, both in their organization and in their objects, is so great, that we may possibly learn something to our advantage by carefully studying the history of the older association, and profit by her experience, and, if necessary, by her example. The importance of the subject must be my excuse for bringing to your attention many details which otherwise might possibly be regarded as superfluous. . . .

"These details are of importance to the American Medical Association, for they include the germs of an organization peculiarly adapted to American ideas. It is essentially democratic and entirely representative. It is dependent for its success on the intelligence, union, and good-will of the members. It is decentralizing, inasmuch as it tends to the formation and the strengthening everywhere of the local societies, which have thus throughout the year the means of making themselves heard in metropolitan centres, and of communicating with each other. Above all, it is a most successful and influential means of increasing the membership, and enlarging the power and widening the basis of the Associa-

tion, and of making it a living organization during the intervals between the annual meetings.

"Finally, it has the great advantage of securing the largest amount of value to each and all of the members, for the smallest possible subscription. The *Journal* becomes, in fact, a co-operative enterprise in which *the profits resulting from their subscriptions go into their own pockets*, instead of those of any individual proprietor. They *own their own paper*. They are able to get the advantage of a powerful organization and of a first-class medical paper at the same annual subscription as that of a medical paper by itself, and with the surplus they find funds for the promotion of public and scientific objects, and the creation of a reserve fund for future public uses.

"There seems no reason why an experiment so essentially in accord with American instincts and traditions, and one which has succeeded so well in England, should not have at least as great, if not a greater, success in America.

"One point, however, that is specially worthy of note is, that the success of the *British Medical Journal* has been largely dependent upon the manner in which it has been conducted. The weekly *Journal* did little for the Association until it fell into the hands of an experienced editor, whose ability is so generally recognized that there is no need to dwell upon it, and to whom a large and unfettered responsibility is left, although he remains, of course, personally responsible to the executive body of the Association for the right use of the power entrusted to him, as every editor does to those who appoint him. It will be necessary to find for any organ which this Association may publish an editor of recognized position, whom the Association would accept as its worthy officer and representative in so responsible a post —a man of literary skill, scientific knowledge, and journalistic experience, or, at least, journalistic instincts and tact. He should be paid liberally; he should be treated with respect, and from him ought to be expected a serious determination to use the powers entrusted to him with courtesy and fairness, and with one sole object, the elevation of the standard of professional knowledge and interests, the maintenance of a high order of professional dignity and mutual courtesy.

"It is impossible to doubt that such a man can be found. Possibly, there may be many, and the question is one which appears to be well worthy of thorough examination by the council and members of this Association, because it seems tolerably certain that if, for the present bulky, tardy, little-read, and unproductive volume of transactions, there could be substituted an active, vigorous weekly journal, read everywhere, and with a large income such as would naturally come to it from its advertising sheet, there would be in such a change the earnest of a rapid and important growth in the numbers, influence, and usefulness of the American Medical Association."

On motion, by Dr. Wm. Brodie, of Michigan, a vote of thanks was tendered to the President for his able address, a copy requested for publication, and the recommendations which it contained were referred to a Committee of five to report upon during the present meeting.

MEMBERS BY INVITATION.

The following were elected as members by invitation: John L. Campbell, J. C. Thomas, Robert Newman, Charles Heitzman, S. A. Raborg, A. S. Church, Chas. Bliss, E. H. Janes, Y. W. Stromach, Geo. G. Wheelock, of New York, G. B. Bayles, Orange, N. J., David Magie, F. Lange, J. C. Jay, F. E. Hyde, G. Langman, Wm. H. Chamberlain, S. H. Dessau, C. A. Kinch, A. M. Jacobus, J. H. Fruightnight, C. S. Wood, P. C. Cole, John H. Nesbitt, Wm. J. Fields, Wm. H. Katzenbach, Richard T. Bang, Wm. M. McLaury, E. C. Harwood, A. W. Maynard, of New York, Geo. W. Wells, Brooklyn, J. Baxton Upham, Boston, F. Gundrum, Michigan, Robert Taylor, Henry F. Walker, Louis H. Sayre, J. Williston Wright, W. C. Gilliam, J. H. Anderson, F. R. Sturgis, A. McLane Hamilton, H. Goldthwaite, C. H. Van Ramdohr, H. F. Norris, C. S. Ward, T. H. Burchard, B. McE. Emmet, H. D. Nicol, E. D. Loring, R. A. Witthaus, A. E. Macdonald, B. F. Dawson, F. A. Castle, A. H. Buck, Wm. H. Hall, C. C. Lee, D. Phillips, C. J. Sharretts, R. W. Taylor, F. H. Bosworth, M. Clymer and C. Wagner of New York, J. S. Coleman, Augusta, D. D. Bramble, Cincinnati, J. B. A. Risk, Covington, W. W. Welch, Norfolk, Conn., J. W. Welch, West Winston, Conn., W. H. Welch and L. Pitkin of New York, H. L. Sims, San Francisco, J. Mackenzie Gordon, Australia, J. W. Rosedrigh, Hamilton, Canada, A. H. David, Montreal, Canada, M. L. Dixon, Montreal, Canada, J. L. Axtelle, Mr. Joseph Hutchinson, Liverpool, Eng., Jos. Trenholme, Montreal, Canada, T. H. Nott, Texas, W. H. Nash, New York, John H. Janeway, U. S. A., W. H. Hingston, Montreal, Canada, David Clark, Toronto, Canada, I. McFadin Campenos, Gaston, Brazil, W. R. Birdsall, New York, C. D. Alton, Hartford, Conn., J. Solon Briggs, Newark, N. J., Mrs. J. S. Briggs, Newark, N. J., E. Cogeswell, Cambridge, Mass., Talbot Jones, St. Paul, Minn., H. C. Palmer, Rome, N. Y., Mr. Jonathan Hutchinson, London, Eng., G. S. Ryerson, Toronto, Canada, G. A. Coburn, Cambridge, Mass., L. V. Cortelyou, Ponghkeepsie, T. A. McParlin, U. S. A., F. S. Dennis, New York, T. Mitchell Prudden, New York, G. E. Sussdorf, New York, W. Miner, Ware, Mass.

SECTION ON DISEASES OF CHILDREN.

Dr. Pallen, of the Committee of Arrangements, announced that provision had been made for a temporary section on Diseases of Children.

RESOLUTION OF CONDOLENCE.

Dr. S. D. Gross, of Philadelphia, moved, with appropriate remarks, that the Association tender to their President, and, through him, to the family, their warmest sympathy in their sad bereavement by the death of Dr. Charles H. H. Sayre. The motion was adopted by a rising vote.

THE REPORT OF THE FOREIGN DELEGATION ON THE PROGRESS OF MEDICAL INTERNATIONAL UNIFORMITY

was presented by Dr. E. Seguin, of New York, Secretary, which on motion by Dr. Brodie, of Detroit, was ordered to be printed and laid on the desks of the members to-morrow morning.

COMMUNICATIONS FROM ABSENTEES.

On motion, the order of business was suspended, and a letter read from Dr. B. A. Pope, of New Orleans, Chairman of the Section on Ophthalmology, etc., announcing his inability to be present. Entered upon the minutes.

It was also announced that Dr. A. H. Smith, of Philadelphia, Chairman of the section of Obstetrics, etc., is in Europe on account of ill-health, and therefore unable to be present. Entered upon the minutes.

REPORT OF COMMITTEE ON PRIZE ESSAY.

The Committee on Prize Essays, through its Chairman, Dr. ALFRED LEWIS, reported that they did not find any material to award a prize to the single essay presented. Accepted and adopted.

The reports of other committees were announced, and received and filed for reference.

On motion, the Chairman of the Committee of Arrangements was instructed to have announced in the Sections that to-morrow morning, at 9:30, the several delegations will meet in the general hall for the purpose of selecting a representative to serve on the Committee on Nominations.

The Association then adjourned to meet on Wednesday morning at 10 o'clock.

SECTION ON PRACTICE OF MEDICINE.

J. S. LAYCOCK, M.D., Chairman.

W. C. GLAZEBROOK, M.D., Secretary.

The first paper,

ON THE CLASSIFICATION OF REMEDIES,

was read by DR. WM. H. THOMSON, of New York.

Dr. Thomson referred to the many classifications of remedies already in vogue, and the objections which can be found against each.

The weakness of the classification on symptomatological grounds, for instance, is illustrated by the properties given to "hoarhound" in our dispensatory. Here it is stated to be laxative, diuretic, diaphoretic, expectorant, and a general deobstruent.

A better principle to go on is that of taking as the character of the drug, on the one hand, the effect it produces in a certain time in one large dose, and, on the other hand, the effect that is produced by a gradual administration of it. Illustrations of the one class are cantharides and opium; of the other, are mercury, iron, and arsenic. The difference between these two classes is marked. Thus, the *immediate remedies* produce symptoms at once; the *remote* do not act so, or, if they do, it may be considered that they are not acting remedially. Another difference is that the immediate remedies produce their symptoms in the healthy as much as in the sick; the remote remedies do not act so. Iron does not enrich the blood of the healthy.

Again, the first class is given to remove symptoms, the second class, to cure disease. Opium, on the one hand, and iodide of potassium on the other, illustrate this.

We may lay it down as a rule that when the first class, or symptom-remedies, do not produce symptoms, we have not given enough. On the other hand, when the second class produces symptoms, we have given too much. The first class, or symptom-medicines, again affect functions; the second class, or disease-medicines, affect organs. This difference is shown in the effects of iron and digitalis. The latter is a neurotic, and affects the function of the heart. Iron, however, affects the tissue of the organ, and may prevent its fatty degeneration.

In the treatment of acute affections, fevers, etc., the disease-medicines are almost always useless; and in the treatment of chronic diseases, the symptom-medicines are generally useless. This is because acute diseases, as a rule, are due to accidental functional derangement, while chronic diseases are due to organic changes. Here it is that the physician cures, if anywhere, and here he will gain the greatest triumphs.

The classification proposed, therefore, is as follows:

CLASS I.—SYMPTOM-MEDICINES.

Class I.—Restoratives, which are natural to the system.

Class II.—Alteratives, which are unnatural or foreign to the body. These medicines cease to act remedially when they begin to produce symptoms. It is well to give the restoratives with the alteratives, as it will put off or prevent the development of symptoms.

CLASS II.—SYMPTOM-MEDICINES.

Class I.—Neurotics, which affect nerve functions.

(*a*) Those which are both stimulants and sedatives, as opium.

(*b*) Stimulants, as arnica.

(*c*) Sedatives, as aconite.

Class II.—Glandular medicines.

Class III.—Astringents.

The advantages of this classification are that it helps the student in studying the action of remedies, and the practitioner in administering them intelligently.

The paper of Dr. Thomson being open for discussion,

DR. ROBERTS BARTHOLOW spoke of the interest which the paper had been to him. He said, however, that certain fundamental objections occurred to him, as to the classification into disease- and symptom-medicines. Opium would be an illustration. Thus, opium, in small doses, had an entirely different effect from it when given in large doses, and any classification based upon dosage could not be established. Again, there were drugs which, though symptom-medicines, did sometimes cure disease; thus, digitalis will cure dilatation of the heart. Again, certain symptom-medicines will produce structural changes; thus, opium, if given continually, will produce anæmia.

Dr. Bartholow was of opinion that no correct classification of remedies could be made at present, as our knowledge is insufficient.

DR. THOMSON said in reply that he thought Dr. Bartholow misunderstood his position. Thus, in regard to the classification by dosage, his point was that one dose of symptom-medicines, whether great or small, must act at once. The symptoms may vary, but the time is immediate.

In regard to symptom-medicines not curing disease, he had never seen digitalis do what Dr. Bartholow asserted it could, *i. e.*, cure dilatation of the heart.

In regard to the use of the word alterative, Dr. T. had used it with reluctance, and did not use it at all with his students; but it was a convenient and familiar term.

DR. PUTNAM-JACOBI called attention to the fact that the ultimate action of all medicines was necessarily molecular. That Nothnagel endorsed the conclusions based on our experiments, that alkaloids acted by diminishing the oxidations in nerve tissue—that is, affected the first step in the process of elementary respiration, whereby the atom of carbon was liberated from its albuminous molecule and given up to the oxygen of the blood. Thus, we may suppose that opium, for instance, diminishes the activity of the intra-molecular oscillation of atoms. While mercury, on the contrary, accelerates this intra-molecular os-

cillation, and favors the breaking up of the albuminous molecule saturated with a specific poison.

Again, although small doses of morphine produced only perceptible effects on the molecules of the nerve-tissues, poisonous doses were seen to extend these very same effects to *all* tissues. Thus, in opium coma, the elementary respiration *is everywhere arrested*, oxidation of all tissues deficient, hence the secondary paralysis of capillaries, which is a prominent feature of opium-poisoning.

In such a conception of molecular action we are able to have a comprehensive view of the entire action of the drug; also a proof that an influence called "functional," when confined to nerve-centres, becomes structural when with increasing doses it extends beyond them.

Dr. Roberts Bartholow objected further to Dr. Thomson's paper. He instanced several examples of symptom-remedies which did cure disease.

Dr. Thomson said that the anæmia produced, as stated by Dr. Bartholow, was not due to the direct effect of the drug, but to the anorexia which the drug produced. So of other remedies of this class—they might produce structural changes, but not as a direct result of their use.

With reference to Dr. Jacobi's remarks that, even in functional, remedies there are molecular and therefore really structural changes, he admitted this, but said that we are so very far away from ever knowing what these changes are, that they need not be taken into account. He did not believe in the value of the German theories in regard to the precipitation of albumen by various drugs.

At the close of the discussion the paper was referred to the Committee on Publication, and ordered to be printed.

The next paper was entitled

A CASE OF OCCLUSION OF ONE OR MORE OF THE CEREBRAL SINUSES,

by Dr. M. O'Hara, of Philadelphia. Dr. O'Hara related a case of a girl whom he was called to see some months before. The patient suffered from intense headache, œdema of the face, slight strabismus, and ecchymosis of the conjunctiva. There was slight anæsthesia of the left side and hyperæsthesia of the right; slight dulness of hearing on the left side. There was evidence of some paralysis on the left side of the body. Her mind was clear. She was treated at first with mercury and iodide of potash; purgatives also were given with good effect. She gradually improved, and in three weeks was quite well. The chief points in her symptoms were the œdema, neuralgic pains, conjunctival ecchymosis, ocular protrusion, and paralysis of the right sixth nerve. It seemed probable that there was a thrombosis of the right cavernous sinus which extended through the circular sinus to the left cavernous sinus.

The cause of this thrombosis was not very evident. It was not brought on by any trauma, erysipelas, or inflammation of the middle ear. The writer went through all the possible causes of the symptoms in the present case and rejected all but phlebitis. He then referred to the lack of information upon cerebral thrombosis in American text-books, and to the varying opinions as to where the lesion lies when there is œdema and ocular protrusion due to venous stasis. It had been asserted that many cases of ocular protrusion, supposed to be due to aneurism, are really due to venous obstruction. The statement was also quoted from Dr. Harland that orbital aneurism is very rare, if it ever occurs.

The paper being open for discussion,

Dr. Bennett, of Cleveland, asked the reader the explanation of the recovery, if there was a thrombosis.

Dr. O'Hara replied that he was inclined to think that the cause of the trouble was a specific one. The patient recovered rapidly under large doses of biniodide of mercury.

SECTION ON SURGERY AND ANATOMY.

W. T. Briggs, M.D., Nashville, Tenn., Chairman.
C. Powell Adams, M.D., Hastings, Minn., Secretary.

In the absence of the permanent secretary, Dr. Cummings, of Arkansas, was elected temporary secretary. Dr. Adams, however, came later, and took his seat as secretary of the section.

SPINAL EXTENSION—ITS MODES, MEANS, AND MOTIVES.

Dr. Benj. Lee, of Philadelphia, read a paper on spinal extension, illustrated by numerous diagrams and accompanied by the demonstration of the author's apparatus. Vertical, inclined, and horizontal extension were successively discussed. Dr. Lee showed his apparatus for self-suspension, which he considered an important modification of existing appliances. Its mode of employment placed the extending force in the patient's own hands, robbed the operation of all its terrors, converting it in fact into a pleasant amusement.

The author then exhibited an improved "surgical table," manufactured by W. H. Johnstone, of Philadelphia, and described the method of its employment. It was thought to be the most perfect piece of mechanism ever constructed for the purpose of producing horizontal extension of the spine. The entire absence of all jerk or jar in its action enabled us to make extension to a very considerable degree, almost without consciousness on the part of the patient.

The indirect or mediate object of spinal extension was always the overcoming or redressing of a curvature, and the concomitant deformity of the trunk for a brief space of time, during which a fixed dressing could be applied, or a cast taken from which a removable jacket could be made. With the former of these plans, namely, the application of the plaster-of-Paris jacket, the name of the distinguished president of the society was associated the world over.

PHIMOSIS AS A CAUSE OF NERVOUS SYMPTOMS, WITH RESULTS OF OPERATIONS.

Dr. Geo. M. Beard, of New York, read a paper on phimosis as a cause of nervous symptoms, and gave the results of operative treatment in several of his cases. He stated that Lallemand had first brought this subject to professional notice, and to this author also belonged the credit of having organized this department of surgery and neurology. Dr. Beard then reviewed the literature of the subject, and finally formulated his conclusions as follows:

First.—There were a large number of neurasthenic symptoms in addition to those previously referred to by writers. These might be caused or aggravated by phimosis, or the presence of this condition might interfere with their cure. Adherent and redundant prepuce might act in the same way. Among these symptoms Dr. Beard mentioned:

1, Morbid fears of various kinds, as fear of society, of places (topophobia), of being alone (monophobia), etc.; 2, dilated pupils and congestion of the con-

practice; 4, sleeplessness and persistent thinking; 4, sweating of the hands; 5, palpitation and cardiac oppression; 6, numbness of muscles, the so-called fibrillar contractions; 7, lumbar and dorsal pain and tenderness; 8, general or local tremor; 9, great hyperesthesia of the urethra; 10, irritable prostate; 11, relaxed sexual power; 12, frequent and difficult micturition.

Second.—There might be a great degree of phimosis and the prepuce might be both redundant and adherent from birth without exciting any nervous symptoms that could be traced to these conditions. In at least one-half of the healthy adults there was either phimosis or redundancy of the prepuce with or without adherence.

Third.—When the nervous symptoms had become depleted of its force, then this local irritation from phimosis or allied conditions might become the excitant or aggravant of nervous symptoms.

Fourth.—The great points in the operation of circumcision in these cases were thoroughness and care in details.

Fifth.—Immediate or startling results were not to be expected.

Sixth.—Long confinement after operations of this kind was not always necessary.

Seventh.—Keeping back the prepuce and stretching it was sufficient in some cases.

Eighth.—It was not well to depend exclusively upon the operation for the cure of the symptoms that were connected with phimosis. Accessory and supplementary treatment might be needed. This was the same as that employed for general neurasthenia, as described in the author's work on that subject.

Illustrative cases were then cited. Out of eighty cases of general and sexual neurasthenia, thirty-one cases, or over one-third, had either phimosis or adherent and redundant prepuce.

In studying this subject in a Russian bath establishment, it was found that at least one-half of the patrons had either phimosis or redundant prepuce.

Dr. Hart, of Plainfield, related a similar case, which he had formerly published. He also instanced other cases, in which an undoubted connection existed between redundant prepuce and various nervous symptoms. Circumcision was thought to be not always necessary. Simple splitting of the prepuce might often suffice.

Dr. Maxwell, of Delaware, remarked on a case which had occurred in his practice. A boy, five years old, who made slow recoveries after attacks of diphtheria and pneumonia. Upon examination orificial contraction was ascertained to be present. The urine also contained saccharine matter. Circumcision was performed, and resulted in an entire removal of nervous symptoms. Anti-diabetic treatment had formerly lessened the amount of sugar in the urine, but after the operation diabetic urine was never passed.

Dr. Weldon, of Ithaca, said there was a physiological side to this subject, and thought the eight centres might be increased indefinitely.

Dr. Lee, of Philadelphia, referred to the probable connection between the disorders of ovulation and the establishment of lateral curvature of the spine in young females.

He also remembered cases of hip disease where redundant prepuce had existed, but he had had no idea of any interrelation between the two.

Dr. Herrick, of Cleveland, mentioned a case and alluded to disturbances resembling those described by Dr. Bond. Let he said this case was not amenable to treatment by circumcision.

Dr. Cheney, of Berlin, also related a case upon which he had operated.

Dr. Hodgen, of Denver, said he had advised the operation of circumcision in cases of mental alienation. This was done merely to make an impression on the patient and had been practised where preputial relief could not exist.

SECTION ON THE INFRA-ORBITAL AND INFERIOR DENTAL NERVE FOR NEURALGIA.

Dr. John T. Hodgen, of St. Louis, read a paper on section of the infra-orbital and inferior dental nerve, for neuralgia. He said that by using a hook, or an elevator after section of the nerve, this might be drawn out of its canal and then clipped off. This was done to preclude the possibility of the reestablishment of union, which would lead to the return of neuralgia.

The details of his methods of operating were then given. The inferior dental nerve was exposed by suitable incision, and then looped up and cut. He had operated on twelve patients, operating in all twenty-four times. Sometimes, when the infra-orbital had been cut, the neuralgia had attacked the inferior maxillary, and vice versa.

In 1 cases 1 operation had been done.
In 3 cases 2 operations had been done.
In 4 cases 3 operations had been done.
In 9 cases 1 nerve was cut.
In 3 cases both nerves were cut.
In 3 cases the infra-orbital only.
In 6 cases the inferior dental only.

In every instance the pain ceased immediately after operation. But in some it returned after a longer or shorter interval. All patients were immensely benefited, some were entirely cured. In others final success had not yet occurred.

Dr. J. R. Wood, of New York, thought the first operation was not a difficult one with the right appliances and plenty of light. His own method of operation differed somewhat from that adopted by Dr. Hodgen. A disk of bone was removed from the anterior wall of the antrum, another disk was then removed by a smaller trephine, the spheno-maxillary fossa and foramen rotundum were reached, and by curved scissors the nerve was cut where it made its exit from the foramen. Meckel's ganglion, he added, should be removed if success was expected to be permanent. But in the majority of cases, although all the nerve was removed, the terrible malady would return. Relief often followed immediately after operation, but this did not permanently continue. Illustrative cases were also instanced by Dr. Wood. Concerning operations on the jaw, he had repeatedly trephined, and the patients had generally been quite cured. Still the pains might come back. On the other hand, the pains were so excruciating that any operation was warranted.

Dr. Pancoast, of Philadelphia, concurred in the views expressed by his predecessors. He said that the portion of nerve removed might include its only diseased portion, and thus lead to a cure. Dr. Pancoast's father was said to have removed a part of the nerve, even beyond the foramen ovale, in four successful cases.

Dr. S. W. Gross, of Philadelphia, referred to his paper on the subject, published some years ago in the *Amer. Jour. of the Med. Sciences*, and then gave his method of operating in such cases.

Dr. J. R. Wood, of New York, reported on the re-

sults of a pathological examination of an affected nerve, made by Dr. Welch, of New York.

Dr. Hart, of Philadelphia, related a case where Meckel's ganglion had not been removed and cure had taken place.

Dr. Campbell, of Georgia, thought that, in cases reported as such, Meckel's ganglion had not always been removed. He believed in the central origin of this affection. Hence, removal of peripheral nerve-portions could not be expected to result in a cure.

NEWLY DEVISED ORTHOPEDIC APPLIANCES, INCLUDING THE SECTOR SPLINT.

Dr Chas. F. Stillman, of Plainfield, N. J., read a paper on some newly devised orthopedic appliances, including the sector splint.

He first spoke of some appliances for the more common abnormalities of the foot, and showed a brace, devised by himself, explaining the method and rationale of its application. Weak ankles were next considered, and a brace shown which fulfilled all the therapeutic requirements. The points for which he claimed originality and excellence were: 1, placing the hinge-joint at the back of the heel; 2, making the brace and shoe distinct. Then followed the subject of inverted feet, which in its more advanced stages constituted the various types of talipes varus. Talipes equinus was also discussed, and a bracket, devised by Dr. Stillman, shown. He also spoke of talipes valgus, and showed his brace for this affection.

The sector splint was fully explained, and its various advantages set forth. This part of the paper was, however, not read to the end, owing to the lateness of the hour.

Dr. Hingston, of Montreal, took exception to the pathology of club-foot as explained by Dr. Stillman. In addition, he said an early tenotomy was always the best remedy. He would, however, not operate if the foot could be easily brought into proper position; and it was in such cases that mechanical appliances should be employed.

CERTAIN METHODS IN SURGERY, AND CONSIDERATIONS OF THE ETIOLOGY AND PATHOLOGY OF WHITE SWELLING OR SYNOVITIS OF JOINTS IN REGARD TO THE PRACTICE OF EXTENSION IN TREATMENT.

Dr. Pancoast, of Philadelphia, read this as the title of his paper, and then spoke on various subjects more or less associated therewith. He first showed samples of black silk for sutures, which he preferred to the ordinary white silk, because the latter commonly contained impurities from lead salts. He then described his method of operating for varicocele, in which he employed a zinc button, and exerted great force in the tying of the ligatures. Here also he used strong black silk. Forty cases of amputation at the metacarpo-phalangeal articulation were then instanced. In these he had, contrary to the method commonly in vogue, employed a volar flap. The success had invariably proved gratifying.

A case of removal of a large steel body from the antrum was next related. The patient recovered. An instrument for cutting strictures was described and the mode of its employment shown. Deep incision was condemned as leading to a large, firm, intractable cicatrix. Twenty-one cases were successfully operated on with this new instrument.

A pathological specimen was exhibited, showing the result of exsection at the shoulder-joint. A new capsule had formed six months after the operation, at which time the patient had died of alcoholism. The articular lesion was a rheumatic arthritis.

Dr. Pancoast also presented a specimen illustrating successful exsection at the hip-joint. In this case, likewise, a new capsule of very perfect nature had been formed after six months.

Another specimen was then demonstrated. It consisted of the femoral condyles which had been removed in a case of telescopic fracture of both inferior extremities. The cartilage had been exposed intra vitam, but it never became inflamed, macerating away gradually.

He next presented a specimen of ostitis of the femur, which showed breaking-down of the bone near the femoral condyles, without involvement of the adjoining articular cartilages.

Various diagrams illustrative of knee-joint lesions were exhibited. Dr. Pancoast emphasized the fact that ligaments would not stretch normally. But when altered by inflammation they readily gave way. Injected specimens of joints were passed around for inspection. These showed the absence of vascular filling in the cartilaginous portions of the articulations. Cartilage, he said, was nourished by the surrounding and adjoining tissues, not by a vascular supply.

An experiment was then performed which illustrated effusion taking place into the hip-joint, and its consequent action.

The great principle in the treatment of articular affections was rest, and not extension. The latter often had bad effects from irritation of the synovial membranes, which were the chief seat of disease.

In the stage of spastic muscular contraction of such cases, tenotomy and myotomy were recommended as tending to relieve the spasm. In the advanced stages exsection alone could be relied upon. Extension would only aggravate the disease in those stages, because the synovial structures would be additionally irritated by the extending force. The hot iron was recommended as the most efficient revulsive in articular affections. Rest, he said, must be enforced, and suitable antiphlogistic treatment combined with this, was far superior to any apparatus for permanent extension.

Dr. Martin, of Massachusetts, observed that Dr. Pancoast's points were well taken. He also stated that a much thickened synovial membrane frequently simulated articular effusion. His mode of enforcing prolonged rest was then described. This, he also, like Dr. Pancoast, considered the most essential factor in the treatment of articular lesions. Several illustrative cases were related.

Dr. Pancoast gave a description of a French method of employing cotton wadding for articular bandaging, which, he said, adapted itself admirably to the natural configuration of the limb.

Dr. Martin finally said that, in his 240 cases of exploratory articular punctures, he had purposely abstained from using antiseptic precautions, and had never found the slightest symptom of inflammatory reaction.

The Society then resolved, on motion of Dr. Pancoast, to resume the discussion of his paper on the following day.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

Albert H. Smith, M.D., Philadelphia, Pa., Chairman.

Robert Battey, M.D., Rome, Ga., Secretary.

In the absence of Dr. Smith, in Europe, on account of ill-health, Dr. G. M. B. Maughs, of St. Louis, was called to the chair.

Dr. J. Marion Sims of New York, read a paper on

BATTEY'S OPERATION IS EPILEPTOID AFFECTIONS.

Battey's operation, he said, like all innovations, had had to fight its way, but he had no doubt, from the favor it had already received, both in this country and in Europe, that the time would soon arrive when it would be recognized as a legitimate operation. He had performed it eleven times, the first four cases occurring before he adopted the antiseptic method, and the last four operations being performed with full antiseptic precautions. As bacteria had rendered the operation of ovariotomy one of the safest in the whole domain of surgery, he saw no reason why it should not do the same for Battey's operation. On this occasion he desired to report the last four cases upon which he had operated. Three of these were cases of epileptoid convulsions associated with the menstrual molimen, and the other was one of hystero-epilepsy of a peculiar and unique character.

The first patient was thirty years of age. Her menses appeared for the first time at 18, and were very painful during the whole of the flow. She would often lie on the floor and writhe in agony, without any relief from remedies ordinarily administered in similar attacks.

The dysmenorrhœa was accompanied with cramps and severe pain in the back, through the pelvis, down the thighs, and in the back of the head. She also had nausea and vomiting every day and hysterical spasms occasionally during the flow.

She was married at 22, and all her symptoms seemed to have been aggravated by marriage.

About six weeks after her marriage she had epileptoid attacks during the menstrual period. At first they were slight, but afterward of great length and severity.

When Dr. Sims first saw her, in April, 1877, she had vaginismus, vaginitis, retroversion of the uterus, hypertrophy of the posterior wall, flexure and stenosis of the cervical canal, and both ovaries were enlarged and exceedingly tender on pressure.

At that time he was satisfied that there was no remedy for her but in Battey's operation; but, as he was on the eve of departure for Europe, he did not see her again for two years and a half.

On January 12, 1880, Battey's operation was performed at St. Elizabeth's Hospital, New York. Both ovaries were removed, and she recovered from the effects of the operation without any untoward accident. She has never had a single convulsion since the operation, and her health has improved in every way. She is now a happy wife and a useful member of society. Before the operation the sexual appetite was very strong, but not morbid.

A good deal of nonsense, the writer said, had been written by men high in the profession on the subject of Battey's operation unsexing the woman.

The second case was also one of hystero-epilepsy. The patient was thirty years old and unmarried. When Dr. Sims first saw her, in October, 1879, she was weak and miserable, and never for one moment free from pain, which radiated from the pelvic organs. She also suffered from severe dysmenorrhœa and the uterus was retroverted. Both ovaries were exquisitely sensitive on pressure, and the pain thus occasioned radiated through the back and hips. Battey's operation was performed December 12, 1879, and she recovered rapidly from it, suffering only from abscess in the track of the sutures closing the abdominal incisions. After the operation she was for the first time in ten years free from pain, and, although still weak, her health bids fair soon to be better than it ever had been.

In the third case, likewise one of hystero-epilepsy, the patient died. Dr. Sims believes from the effects of the anæsthetic employed, the bromide of ethyl, two minutes and a half after the operation. The case had already been made the basis of a paper on this anæsthetic, which he read before the N. Y. Academy of Medicine in March last, and the gentlemen then present had all agreed with him as to the cause of death.

The fourth case was a very peculiar one. The patient was twenty years old and unmarried. During her childhood she was subject to convulsions with every attack of disease from which she suffered, and also when over-excited in any manner. Menstruation appeared at the age of ten and a half years, and with it she always had convulsions until she was fourteen. Under treatment the convulsions then ceased for a short time, except during the menstrual period, when they invariably recurred. This comparative freedom from convulsions continued during a residence of six months in Europe, but on her return to America they came on again with great frequency and severity. She sometimes had a dozen at night and half a dozen during the day. She described the aura as starting from the uterus and radiating toward each ovary, where it often stopped. But if the sensation went beyond to the epigastrium, it always resulted in this terrific convulsive explosion. Menstruation was irregular, scanty, and painful. Pressure over the uterus and ovaries by conjoined manipulation caused the sensation of the aura, but did not actually produce convulsions. One peculiar point about the case was that consciousness was never lost during the seizures. After trying every method of treatment without relief, Battey's operation was performed on the 11th of January, 1880. She soon recovered from the effects of the operation, but the convulsions were not controlled by it.

The latest reports showed that she was improving, however, at the institution of Dr. Mann, at Fort Washington, and hopes were still entertained of her recovery.

All the operations were done antiseptically and by abdominal incision. After some general remarks on the operation, Dr. Sims described his own method of procedure as follows: "I use the simple abdominal incision, as we usually make it for ordinary ovariotomy, midway between the umbilicus and symphysis pubis. The patient lies flatly on the back, with her knees a little flexed, and an incision three inches or three and a half inches long is made between the recti muscles down nearly to the pubic bones. As soon as this is done, and before the peritoneal cavity is opened, the Sims uterine elevator is introduced into the cavity of the uterus (whether in a normal position or otherwise), and it is raised by the instrument locked at right angles, and the fundus is held firmly just above the symphysis pubis by an assistant, who holds the handle of the locked instrument immovably until the operation is completed.

The peritoneum is now opened, and the fundus uteri is found in contact with the lower end of the abdominal incision. The fundus is grasped, the finger passed along the Fallopian tube on one side until the ovary is reached, at the same time that the fundus of the uterus is turned by the elevator to the opposite side from the ovary that we are reaching.

With the fore and middle fingers the ovary is brought to the surface, the pedicle ligated, and the

ovary removed. Then, by rotating the handle of the elevator to the opposite side, the other ovary is elevated correspondingly nearer the external incision, when the fore and middle fingers are passed along the Fallopian tube as a guide until the ovary is found and brought to the surface and treated in the same manner as the first. After we are satisfied that the peritoneal cavity is dry and cleared of all coagula and all oozing blood, we proceed to close the external incision by sutures." Great stress was laid on the importance of perfect antiseptic precautions.

Of the four cases thus detailed, the first two recovered easily from the effects of the operation, and were perfectly cured of epileptoid affections for which the operation was performed. The third died from the effects of the anæsthetic, and the fourth recovered rapidly from the effects of the operation, but the convulsive attacks still continued. In every instance the ovaries were diseased, having undergone cystic degeneration; although the microscopic examination had not yet been completed.

Dr. M. A. Pallen, of New York, then read a paper entitled:

ON THE TRUE IMPORT OF OOPHORECTOMY, OR SPAYING FOR REFLEX DISEASE, MORE PARTICULARLY IN EPILEPSY, HYSTERO-EPILEPSY, OR CATALEPSY.

He commenced by giving the histories of three cases in which he had operated himself. The first one was that of a patient who came to him in St. Louis in May, 1872. She was thirty-two years of age, and had been afflicted with epileptiform dysmenorrhœa for twelve years. Physical exploration revealed the presence in the Douglas pouch of a somewhat elastic and not very tender tumor, about the size of a large walnut, which could without difficulty be returned into the abdominal cavity when the patient was in the knee-chest position, and which he believed to be the detached hypertrophied (cystic?) left ovary. The examination also showed that the right ovary was over-sensitive, and that strong pressure by conjoined manipulation evoked symptoms not unlike epileptic spasm. The menstrual sufferings were excruciating, and she declared that she preferred death to the torture they inflicted. In order to give a trial to other means of relief, however, and for various other reasons, it was not until the following December that Dr. Pallen felt justified in performing the operation of oophorectomy. The incision was made through the abdominal walls, and both ovaries removed. On the ninth day after the operation, which was immediately followed by no unfavorable symptoms whatever, the patient died of general peritonitis.

Dr. Pallen thought at the time that he was the pioneer in this operation; but five days after its performance by him he was surprised by having handed him Dr. Robert Battey's pamphlet on "Normal Ovariotomy," and he found that Battey had made his first operation about the same time that he himself proposed its performance to the patient just mentioned. Battey, however, was not the first to make oöphorectomy, nor himself the first to propose it, since Koeberle, of Strasburg, suggested it as early as 1863, and actually performed it successfully in 1869.

Dr. Pallen's second operation took place in 1878, and was undertaken for the relief of hystero-epilepsy, induced primarily by masturbation when the patient was a girl at boarding-school. In this instance clitorectomy had previously been performed by a French surgeon, but the removal of the clitoris did not in the least diminish the desire for self-abuse. She had most marked hystero-epileptic attacks pending her menstrual flow, and she felt that her mental condition would rapidly degenerate into idiocy if she could not be relieved. On the 18th of May, 1878, with the assistance of the late Prof. John T. Darby and the father of the patient (a physician living in the West), he performed laparotomy and removed both ovaries. In this instance Listerism was thoroughly adopted, no drainage-tract made, and the ligatures of carbolized silk cut short and closed up in the abdominal cavity. It is now two years since the oöphorectomy was made, and she has never had a desire for self-pollution, nor has she had any epileptiform or hystero-epileptic attack; neither has she experienced any menstrual molimen.

Dr. Pallen's third oöphorectomy was performed February 24, 1880. It is, he said, in a measure, already historical, in consequence of malignant misrepresentations on the part of irresponsible employees, who were discharged from the Blackwell's Island Female Lunatic Asylum (of which the patient was an inmate) for drunkenness and lying, and who gave vent to their revenge by retailing their unmitigated falsehoods to some of the sensational public newspapers. The general history of this case, as presented in detail, was copied from the records of the institution by Dr. Wm. M. Leszynsky, and shows that the patient, Mary Ann Mullin, had for three months previous to the operation persistent catalepsy, this being the most marked case of true "waxy flexibility" of the muscles that the writer had ever met with. She had not menstruated for four months, and from the best information that could be obtained it seemed almost positive that she had been amennorrhœic previous to her entrance into the asylum, although this fact could not be made out with absolute certainty. There was no doubt, however, that she had been cataleptic, with grave failing of the strength, for three months, and the prognosis was unfavorable. Examination *per vaginam*, with conjoined manipulation, evidently increased the reflex spasm of the eyelids, and suffused the face with epileptoid flushing whenever the ovaries were palpated.

Dr. Pallen believed that this was a case of pure reflex catalepsy, in consequence of the suspended ovarian cell-action necessary to menstruation, and felt that a neglect to perform oöphorectomy here would have been a palpable neglect of his duty as consulting gynæcologist to an institution of such importance as the Female Lunatic Asylum on Blackwell's Island. To have restored this poor girl to health, he thought, would have been a blessing to herself and a boon to science; and if the fatal septic peritonitis which followed the operation could have been averted, he was firmly of the opinion that she would have been cured of her catalepsy and insanity. The great mistake, he said, was to attempt to operate in a building already filled with septic germs; but we see often a failure what we hoped might not exist prior to an operation. He classed Mary Ann Mullin's case with the curable insanities of women, and trusted to show that this operation came under the head of justifiable spaying for the relief of reflex conditions. The clinical history of the case, he continued, was written by Dr. Leszynsky, and as a record of patient, self-sacrificing duty it stands almost alone, when we bear in mind that he wrote down the condition of the patient every fifteen minutes, as he observed it for three days and twenty-two hours of uninterrupted watching. Yet Dr. Leszynsky was but an unpaid assistant in a pauper

to one's self, working only for the sake of science, humanity and knowledge."

The operation of oöphorectomy or sparing (a castration of the female, as it has been called by Hegar, the writer went on to say, has now been done sufficiently often for us to arrive at something definite as to its true import. He deemed oöphorectomy as a removal of the ovaries, not so much for disease of these organs as for disease produced by change in their action or function. Herein he stated, he differed from Prof. A. Hegar, of Freiburg, who had blended true ovariotomy with oöphorectomy. After alluding to the statistics of the subject, he mentioned that sparing the human female was practised by edict among the Lydians, as Herodotus and Andranystus ordered women to be thus mutilated in order that they might take the place of eunuchs in the harem.

In 1841 Platz proposed the operation in hopes of "repressing the lasciviousness" of certain women; but he met with violent opposition on the part of Riolan and Diemerbroech. From 1871 to 1873, when Koeberle deliberately proposed extirpation of both ovaries simultaneously with ablation of the supra-vaginal portion of the uterus, there are several instances on record of recovery from oöphorectomy accidentally performed. Barnham, of Lowell (in 1854), seemed to have been the first in modern times to have successfully made uterine ablation with oöphorectomy; although he mistook his case for one of ovarian cyst. In 1867 Koeberle put in practice oöphorectomy with uterine ablation, and in 1869 he performed unilateral normal ovariotomy upon a patient who was the subject of hysterical manifestations and affected with vaginismus. She also had retroversion and retroflexion of the uterus; which produced obstinate constipation from intestinal obstruction, with frequent and violent attacks of ileus.

Oöphorectomy was essentially Battey's operation, and it had for its object the production of the menopause, in order to overcome disease developed through the agency of ovarian action. Its scope was quite wide, as had been demonstrated by numerous successful issues; and upon the true pathology of epilepsy, hystero-epilepsy and catalepsy, in so far as they were connected with ovarian cell-genesis, would be the future determination of its true import in the cure of these diseases.

The subject of the papers now being open for discussion, the Chair called on Dr. Robert Battey, of Georgia, who stated that he had nothing more to add to what he had given to the profession in his reported cases and in his argument before the American Gynæcological Association, at the meeting in Boston three years ago. The operation was practically out of his hands now, as in his secluded position he had few opportunities for performing it, and he looked to the distinguished men in the great medical centres to take it up and thoroughly test the questions involved in it.

Dr. Trenholme, of Montreal, stated that when in 1876 he performed normal ovariotomy, he supposed that he was the first operator to undertake it; but when he found out, six weeks afterward, that Dr. Battey was the pioneer in this field, he cheerfully yielded the priority to him; and he was delighted now to see that eminent surgeon reaping the honors which he so justly deserved.

Dr. Marcy, of Massachusetts, thought that Dr. Sims had been inclined to exaggerate the difficulty of removing the ovaries by the vaginal incision.

Both Dr. Battey and himself had practised this method very successfully, and he considered it less dangerous on account of the avoidance of the risk of peritonitis. In one case he had removed the Fallopian tube and a portion of the broad ligament without bad result. In every instance he had followed very carefully the directions of Lister, of whom he was a pupil more than ten years ago.

Dr. W. M. Pyeatt, of Pennsylvania, related a case of his, in which Prof. Goodell, of Philadelphia, had performed Battey's operation, *per vaginam* during the past month. She had been the subject of periodical insanity, and at the time of the operation was violently maniacal. The next morning after it she was perfectly rational, and had remained so ever since. He did not like to report the case cured, however, until it was known how she passed her menstrual period, which would occur about the 10th of June.

In answer to a question as to whether there was not great difficulty in removing the ovaries by the vagina when the adhesions were marked, Dr. Battey stated that he had met most serious obstacles in adhesions of the ovaries and other pelvic organs, and in one or two instances to such an extent that the object of the operation was defeated on this account. As was well known, the object of the operation was to induce the menopause; but he had been astonished to find how small a fragment of the stroma of the ovary would keep up menstruation indefinitely. After relating two or three instances of this, he said that he had become very strongly impressed with the idea that in some, at least, of the instances of continued menstruation after removal of both ovaries reported by Atlee, Peaslee, and many other authorities, some small portion of one of the ovaries had been unintentionally allowed to remain in the body. Dr. Battey then referred to some of his cases in which the ovaries were so firmly imbedded in adherent lymph that the organs actually became disintegrated in the process of removal. In more than one instance he had therefore failed to perfectly enucleate the ovaries, and thus make a complete extirpation. In every one of his cases, however, he had been able to state distinctly, upon leaving the operating-table, whether menstruation would certainly cease, or whether some fragment of the ovary had to be left, and the future result of the case would, therefore, be somewhat uncertain. He was disposed to attach considerable value to the vaginal operation; although Sims, since the application of Listerism in this department, now always performed the abdominal.

In some respects, indeed, it was even better in the vaginal operation, since the vagina acted as a funnel, and thus concentrated the antiseptic spray. It was true that it somewhat obscured the seat of operation; but in this procedure it was much better to depend upon the touch than the sight. To express his views on this question succinctly, he would say that the vaginal operation was always preferable in dexterous hands when we can be sure of the absence of adhesions, and the abdominal in conditions the reverse of this. In his fifteen cases there had been two deaths, and in both of them the vaginal operation had been performed; but he was able to state positively that in neither of them had the method adopted anything to do with the fatal result.

Dr. Parsons, of Detroit, inquired of Dr. Battey, whether in case he found firm adhesions he would not advise to abandon the attempt to remove the ovaries by the vagina and perform the abdominal operation, to which Dr. Battey replied that he was

willing to follow the example of Sims in this respect. With his present lights, he would not undertake the operation by the vagina when there were many adhesions.

Dr. Sims said he should like to be convinced very much that the operation could always be performed as successfully by the vagina as by the abdomen. If there were no adhesions, the vaginal operation required but little skill, while the abdominal one, whether there were adhesions or not, was always difficult. He had made one failure in attempting to remove the ovaries by the vagina, and in this instance the patient was too much exhausted to open the abdomen afterward.

Dr. Thomas had also failed once; but his patient was in such good condition that he afterward made the abdominal incision, and she recovered. He would like to inquire of Dr. Battey, on the other hand, if he had ever failed to remove the ovaries after opening the abdomen.

Dr. Battey stated that he performed the vaginal operation in selected cases because it was less dangerous. The cases selected were those where the vagina was large and the ovaries loose in the pelvis. If these conditions did not exist, it was better to operate through the abdomen. He considered the vaginal operation, in many instances, more difficult than Dr. Sims seemed to think, his latter experience especially convincing him of this point.

The idea of Sims in elevating the uterus, he thought an excellent one, and he had no doubt that it would greatly facilitate the operation. Of his fifteen cases, twelve had been performed *per vaginam*, and three by the abdomen, but he thought it likely that if he had them to do over again, these proportions might be reversed.

Dr. Pallen agreed with Dr. Sims as to the superiority of the abdominal operation. Even Dr. Battey, with all his skill, had failed in the vaginal; and he considered it an utter impossibility, with all of the appliances of modern gynecology at command, to diagnose symmetrical peri-ovarian adhesions before operating.

Dr. Sims: "Dr. Battey has not yet answered my question. Have you ever failed to remove the ovaries by the abdominal incision?"

Dr. Battey: "Never!"

SECTION OF OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

Dr. Laurence Turnbull, of Philadelphia, Chairman.

Dr. Eugene Smith, of Detroit, Secretary.

In the absence of Dr. Bolling A. Pope, of New Orleans, Dr. Lawrence Turnbull, of Philadelphia, was made Temporary Chairman.

The session was called to order by the Chairman, and the first paper of the afternoon was read by Dr. W. H. Daly, of Pittsburg, Pa., on

A CASE OF SYPHILITIC STENOSIS OF THE LARYNX WITH FIBROUS ADHESIVE BANDS OF THE TRUE VOCAL CORDS; TRACHEOTOMY; RUPTURE OF BANDS; AND CURE OF THE STENOSIS BY GENERAL AND LOCAL TREATMENT.

This was a case of supposed recurrent asthma. On general examination, the pomum Adami rises and falls 1½ inches externally; inspiration and expiration are in the proportion of 1:3, the latter difficult. A syphiloderm, like linea versicolor, is upon the abdomen; a gummatous node lies in the linea alba 2½ inches below umbilicus, while an irregular ulcer 2½ inches in diameter occupies the left scapular region. Long and high nodes reside upon the upper third of each tibia; clavicular surfaces are irregular, but not tender; patient is emaciated, and has a cachectic look. The difficulty in respiration is evidently due to a valve-like obstruction in the throat; patient stoops forward, and compresses the chest, so as to get a sufficient quantity of air. Laryngoscopic examination reveals an arched, thickened and immovable epiglottis, a rima glottidis of ¼ the length of the vocal cords. The hyperplastic encroachment upon the calibre of the larynx is greatest to the right side of the thyroid box; it obliterates the ventricles and ventricular bands, and pushes against the vocal cords, which are agglutinated in a large part of their extent by a firmly organized plasma. The posterior commissure is obliterated also by the overlapping of the vocal cords; and all the anatomical landmarks of the laryngoscopic field are lost, either by infiltration, degeneration, or displacement. The color of the extra-laryngeal parts is of the leaden hue so well pictured by Türck in his atlas, while that of the intra-laryngeal walls is indian red.

An anti-syphilitic treatment is instituted, and tracheotomy threatened. This is performed three days later, without an anæsthetic, with the loss of less than half an ounce of blood. This is made none too soon, as in three days later the increasing stenosis and perichondritis have made the passage air-tight. From this time there is a gradual recession in the size of the growth, which continues almost without intermission for six weeks. The fibrous bands are ruptured with a laryngeal bougie at repeated sittings, and the vocal cords finally come into view. The patient, after the tracheotomy, is put upon a $\frac{1}{10}$ gr. of bichloride of mercury and iodide of potash, which, after two months' administration, is abandoned. Six months after the operation, in April, 1880, patient is engaged in continued manual labor, breathing through the natural straits. Two photographs, taken before and after the tracheotomy, show the comparative status of the patient.

At 2.30 P.M., Dr. Carl Seiler, of Philadelphia, read a paper entitled,

REMARKS ON THE LESIONS OF THE LARYNX IN PULMONARY PHTHISIS.

He finds that ulcerative processes begin in the glands, and not in the mucous membrane, whence come the serrated edges of the epiglottis. The dépôts or foci of pus contained leucocytes, while giant cells have been found only very rarely. Dr. S. thinks that gastric symptoms are found as often as laryngeal, and that it is an error to attribute to the larynx such pathological changes, as determine its separate location as a phthisical habitat.

No remarks followed this most admirable paper.

At 3 P.M., Dr. H. Knapp made extensive remarks upon

TUMORS OF THE LACHRYMAL GLAND: THEIR PATHOLOGY AND TREATMENT, WITH DEMONSTRATIONS.

Dr. K.'s remarks were based upon lachrymal gland tumors in his practice, the first of which was in a lady 26 years of age, who presented a tumor filling the upper and outer portions of the orbit, and pushing forward the lid. Enucleation found involvement of optic nerve. Case II. was that of a man 36 years of age, whose growth was recurrent, and was first removed by Dr. Williams, of Boston. It reappeared in two months, when Dr. K. found a pro-

tumor forward of 11 mm. The eye was pushed downward and inward. A preliminary diagnostic incision was made, and the tumor was found to consist largely of epithelial cells. For its final removal a semicircular incision under the brow was made; the tumor was found attached to the periosteum. Superior and external recti were divided, as well as the optic nerve. Its removal was slowly but easily accomplished. A silver drainage-tube was introduced, and repair was healthy. In two days an ophthalmoscopic examination was made, which it was found that hemophthalmos existed. The macula lutea was reddened, and the retinal veins were large, the latter finally atrophied and became white tendinous cords.

Case III was that of a young man with a story of exophthalmos for 14 months. The eye was nodular to the touch, and pushed downward and toward the nose. Fundus here, as in Case II, was congested, and there was atrophy of the yellow spot. V. $\frac{2}{3}$. Removal was made this last spring by a semicircular incision along the brow. This was followed by a protrusion of fat; the tumor was found thoroughly encapsulated; sutures were placed in the walls of the incision, and healing was by first intention. Vision improved to $\frac{2}{3}$.

It was stated that very few lachrymal tumors have been removed. These, like those heretofore noted, are adenomatous, yet all parts of these tumors do not show similar properties. All were glandular; there was considerable myxomatous tissue, and epithelial cells were crowded together in a polygonal form. The first tumor, of five years' growth, was adenomatous throughout. The second tumor was glandular. The third was more or less cancerous, with lymphatics leading from the alveoli. There is a very prominent proliferation of epithelial cells. K thinks all began as adenomatous growths; then in some parts there was hypertrophy of tissue, with nodes and knots. This is like alveolar cancer. In all there was much myxomatous tissue, giving the general characters of myxo-adenoma. A recess of ten minutes was taken to examine the three microscopic specimens of lachrymal tumor. Remarks being in order,

Dr. Charles J. Kip, of Newark, N. J., showed two photographs of a woman in advanced years, taken before and after the operation of removal of an orbital tumor of the left side. Exophthalmos was downward and inward nearly one inch. K. made an incision along the supra-orbital wall, and removed the growth; without antiseptic treatment and without subsequent secretion perfect union was obtained. The tumor was an ordinary adenoma, consisting of cartilage cells, epithelial cells, and tubes containing gelatinous masses. This case revealed atrophy of the optic nerve and pigment degeneration in the retina.

Dr. Keyser, of Philadelphia, moved a vote of thanks to Dr. Knapp for the presentation of his remarks and specimens, which was given unanimously.

THE TRAINING OF IDIOTIC EYES

was the title of a paper read by Dr. Edouard Seguin. It was not intended as a monograph, but as a continuation of the paper read by the author in 1879, at Atlanta, Ga., before this Section of the Association. Cases of nystagmus associated with myopia and optic nerve atrophy were detailed. Different forms of motility in nystagmus, as well as the fixed stare of the idiot, were referred to. Under symptomatology, an exaggerated neurasthenia enters largely into such cases, neither [illegible] both the motility of the ocular muscles and the [illegible] of the macula lutea.

The first part in the physiological education of the eyes is to connect with the index finger, bringing them into play according to motion and its rate. It is to be noted, as a curious but constant phenomenon, that an object may be held to follow the finger, which he does with his body and head, but not with the eyes. Whether two hand or the eye is the proper organ to train first is perhaps questionable. In this category fall the training, as in drawing on pencil, chalk, paper, parchment, etc. The paper was very lengthy, and was abridged by the author, who collated a few cases of the education of the eyes of idiots.

No remarks followed its reading, and the Section adjourned at 1.30 P.M. until Wednesday afternoon at two o'clock.

The Reception of the American Medical Association at the Academy of Music in the evening was largely attended, and was very successful in every way. Probably two thousand persons were present during the evening. The profession from all parts of the country was represented, in many prominent medical men from the South and West, from Philadelphia and Boston being on the floor.

The music was excellent, and the supper arrangements were on a scale to meet even the very large demand put upon them. The whole affair reflected much credit upon the profession of the city, and the committee who had the matter in charge.

GENERAL SESSION.

Wednesday, June 2—Second Day.

The Association was called to order at 10 A.M., by the President.

On motion made by Dr. S. D. Gross, of Philadelphia, and seconded by Dr. Brodie, of Detroit, the following gentlemen were elected as

honorary members.

Mr. Jonathan Hutchinson, London, England; Drs. Hingston, Osler, David, Howard, and Trenholme, of Montreal; Dr. G. B. Ercolani, Bologna, Italy; Dr. Emilio L. DeMola No, Lima, Peru; Dr. Dillon, of Dublin; Dr. Rosenbergh, of Hamilton, Canada, and Dr. Clark, of Toronto.

representation from the u. s. navy.

Dr. A. L. Gihon brought up the question of representation from the U. S. Navy, and spoke against the action of the Association at the last session, and a vigorous discussion ensued, which was dissipated by a motion made by Dr. S. D. Gross, that as the Judicial Council stated that no charges preferred against the U. S. Navy had been authenticated, the U. S. Navy be at once admitted to full recognition in the Association.

The motion was unanimously carried.

report of the judicial council.

Dr. Benham, of the Judicial Council, reported concerning the affairs of the Allen County Medical Society, Indiana, referring the questions to the State Medical Society for adjudication.

The following were announced as the

committee on nominations.

W. O. Baldwin, Alabama; E. R. Du Val, Ark.; M. S. Storrs, Conn.; Judson Gilman, Md.; W. S.

Tremaine, Kansas; Marshall Sexton, Indiana; J. B. Book, Mich.; Jos. H. Warren, Mass.; E. M. Moore, N. Y.; Duncan Eve, Tenn.; S. D. Gross, Pa.; J. H. Pope, Texas; J. S. Billings, U. S. A.; J. Rufus Tryon, U. S. N.; J. Eliot, D. C.; T. G. Richardson, Louisiana; Dr. Wakefield, Florida; A. T. Woodward, Vt.; H. B. Ransom, Iowa; G. A. Shurtleff, Cal.; F. D. Cuningham, Va.; S. Baruch, S. C.; C. P. Adams, Minn.; M. Campbell, W. Va.; J. G. Thomas, Ga.; William Marshall, Del.; G. W. Nesbitt, Ill.; A. E. Heighway, Ohio; T. G. Robinson, Mo.; R. E. Howard, Miss.; H. A. Hopper, N. J.; G. P. Conn, N. H.; A. Ballou, R. I.; Walter Kempster, Wis.; W. K. Oaks, Me.; J. A. Octorlony, Ky.

The following were elected

MEMBERS BY INVITATION.

C. I. Pardee, S. Kohn, J. H. Hillyer, and C. H. Nichols, of New York; C. B. White, U. S. A.; J. D. Nelson, Stonington, Conn.; Thos. Goodwillie, Vernon, Vt.; Lewis Fisher, New York; Geo. B. Ferguson, Deer Isle, Me.

Dr. Brodie, Secretary, presented his report from the

DELEGATION TO THE CANADA MEDICAL ASSOCIATION,

which was accepted, and ordered to be entered upon the minutes.

Dr. Pratt, of Michigan, reported from the committee appointed last year to take into consideration the *nine* propositions submitted to the Association by Dr. Chaillé, of New Orleans.

The report was unfavorable to all the propositions except the fourth, which contemplated substituting a periodical medical journal for the present volume of transactions. On that proposition, however, the committee were of the opinion that it was the safer way to wait upon the law of growth rather than to adopt any radical change at present.

The report was accepted and entered upon the minutes.

Dr. Walker, President of the Society of Asylum Superintendents, was invited to a seat on the platform.

REPORT OF THE COMMITTEE ON OZONE.

A letter from Dr. N. S. Davis, of Chicago, was read, which, although not a report, contained the essence of what a formal report would have communicated, and it was to the effect that insurmountable obstacles had been encountered in efforts to obtain records of the condition of the atmosphere, such as men of true science would regard as reliable. He asked for $200 to be expended for instruments, if found advisable.

Dr. Jas. T. White, of Buffalo, who two years ago introduced the resolution that gave origin to the Committee on Ozone, moved that the amount suggested be appropriated, and that the committee be continued. Carried.

Dr. J. S. Lynch, of Baltimore, Chairman of the

SECTION ON THE PRACTICE OF MEDICINE,

then delivered his address, in which he congratulated the profession upon the fact that the general health of the country during the last year had been so exceptionally good, and then turned his attention to the subject of yellow fever. He regarded it as settled that the germs of that disease cannot be destroyed by cold, and reviewed the history of the ship Plymouth as bearing upon that question.

Another peculiarity of the poison was that when first emitted from the subject, it was not in an active or potential condition, but subsequently developed so as to render it capable of imparting the disease; therefore a miasmatic-contagious affection.

A review of several observations was given in substantiation of that doctrine. The doctrine being true, there was an abundance of time to destroy the germs before they could communicate the disease; hence, all danger could be absolutely prevented.

Dr. Lynch then passed to the consideration of the great mortality from consumption, scarlet fever, and diphtheria, and the means to be adopted to reduce such rate. Scarlet fever and diphtheria were preventible diseases, and consumption could be markedly checked in its ravages by means of proper sanitary and hygienic measures.

The next topic was antipyretic treatment, as applied by means of the cinchona alkaloids, salicylic acid, carbolic acid, and aconite.

The Chairman then made a brief allusion to what had been accomplished by the aid of the thermometer, the ophthalmoscope, the microscope, and the hypodermic syringe, and closed with an eloquent reference to the present position occupied by the science and art of medicine.

The address was accepted and referred to the Committee on Publication.

Dr. W. T. Briggs, of Nashville, Tenn., then delivered his address as Chairman of the

SECTION ON SURGERY AND ANATOMY.

He directed attention to a surgical procedure, than which none was older in the history of the science or the art of medicine—*prerentire trephining*. The word trephining Dr. Briggs used in a comprehensive sense, and the operation, by whatever instrument effected, was a means to an end, and that end was the removal of fragments of the skull. He then directed attention to the importance of treating injuries of the head properly, especially such as involved fracture of the skull. After making slight reference to the history of the operation, he spoke of the mutability of opinion concerning many important subjects pertaining to medical science, such as blood-letting and lithotomy, and the same could be said concerning trephining; but at the present time there was a revolution in progress in favor of the procedure. The earliest authentic information concerning the instrument was found in the writings of Hippocrates, although it was known to have been performed as a religious rite in prehistoric times.

There were, according to European authorities, three classes of surgeons holding distinct views with reference to the procedure under consideration: First, Those who absolutely rejected the trephine; second, Those who, while recognizing its great value, regarded it solely as a *curative* agent; and third, and by far the smallest class, Those who accepted the instrument as a valuable prophylactic agent, and urged early resort to it in such cases as, from the nature of the injury, seemed to demand it in order to avert threatening danger.

The position taken by Dr. Briggs was, that trephining was not a dangerous procedure if resorted to before the secondary effects of traumatism were developed, and he then considered the objects to be attained by its performance. In the opinion of most authors it should be restricted to cases in which there is immediate danger from compression caused by pus, extravasated blood, or fragment of bone, and each of these conditions was then discussed some-

what in detail, and the conclusion reached that the surgeon should not wait until the characteristic symptoms of such lesions were well marked before operating, but that the operation should be performed for the purpose of preventing the occurrence of inflammation, and the serious consequences by which it might be followed. Statistics showed that of 106 cases, two thirds were saved by *precoce* trephining. Of the forty two cases whom he had trephined, thirty eight recovered. The deductions from such facts were: 1. Extensive comminuted depressed fractures of the skull were almost invariably fatal without operative measures. 2. Curative operations were but little better than the expectant plan of treatment, and 3, Preventive trephining offered the best chances for a successful operation. Dr. Briggs then discussed the question of the treatment of punctured and simple fractures of the skull, fractures of the external and of the internal table, and stated as the essentials to success: 1, full antiseptic precautions; 2, the use of the conical trephine; 3, entire *removal* of all loose fragments of bone; 4, special attention for the purpose of securing perfect drainage, the open wound treatment being his favorite method.

The address was listened to attentively, and, on motion, was referred to the Committee on Publication.

Communications were then read and received their proper reference, after which the Association adopted the following amendment relating to

PRIZE ESSAYS AND THE COMMITTEE ON PRIZE ESSAYS.

a. There shall be four annual prizes of two hundred and fifty dollars each, which shall be awarded at the close of the second year after announcement, as hereinafter explained, for strictly original contributions to medical and surgical progress.

b. It shall be the duty of the Chairman of each of the following four Sections: 1. Practical Medicine, Materia Medica, and Physiology; 2. Obstetrics and Diseases of Women and Children; 3. Surgery and Anatomy; 4. State Medicine and Public Hygiene, to appoint annually, before the adjournment of the meeting of the Association, three members of ability and good judgment who shall constitute a Committee of Selection, and who shall, within thirty days thereafter, select and publicly announce for competitive investigation and report, a subject belonging to one or other of the branches of medicine included in the title of the Section.

c. It shall also be the duty of the Chairman of each of the Sections mentioned to appoint annually a Committee of Award, consisting of three experts, who shall carefully examine the essays offered for competition, and if any one shall be found worthy of the prize as a substantial contribution to medical knowledge, to recommend the same to the Association.

d. All essays placed by their authors for competition shall be in the hands of the Chairman of the respective Committees of Award on or before the first day of January preceding the meeting of the Association at which the reports of the committee are required to be made.

e. All Prize Essays are considered as the property of the Association.

f. The names of the authors of the competing essays shall be kept secret from the committees by such means as the latter may provide.

g. Membership in either of the two committees shall not debar from membership in the other; nor shall membership in the Committee of Selection exclude a member from the privilege of offering a competitive essay.

The Association then adjourned to meet at 10 A.M., Thursday, June 3d, and the Metric System was made one of the orders for the morning session.

SECTION ON PRACTICE OF MEDICINE, MATERIA MEDICA, AND PHYSIOLOGY

Dr. J. S. Lynch, of Baltimore, Chairman.
Dr. W. C. Glasgow, Secretary.

The first paper was read by Dr. H. R. Hopkins, of Buffalo, N. Y., on

SPHYGMOGRAMS, WITH NOTES OF AUTOPSIES.

The sphygmograph, said the speaker, had been twenty years before the public, but had not yet received any general endorsement. Even experts could not interpret its readings accurately. There are, however, qualities in the pulse which are not perceptible to the touch, and in detecting these the sphygmograph can accomplish very much when more perfectly made and more carefully studied. The speaker then showed some tracings which he had made. These tracings were of cases of locomotor ataxia, cardiac dropsy, endarteritis, Bright's disease, and of normal pulses. The pressure at which the tracings were taken was not given, as it was not thought necessary. The speaker believed that the tracings indicated characteristic peculiarities in the circulatory system of each disease. The tracings were taken by a modification of Pond's sphygmograph. It was asserted that a peculiar trace might be found for many chronic diseases. A description of the post mortem appearances of the several cases whose tracings were shown was given.

The rule was given to mistrust the accuracy of the instrument when it failed to give a sharp angle to the tidal wave. Several other cautions were given, but much hope of attaining valuable results held out by the careful use of a good instrument.

The paper was referred to the Committee on Publication.

The next paper was by Dr. Robert W. Taylor, of New York,

ON THE USE OF CHRYSOPHANIC ACID IN THE TREATMENT OF SKIN DISEASES.

Chrysophanic acid is derived from the Goa powder, and it is as much a cure for some skin diseases as quinine is for malaria. The strength of the ointment should be about gr. x. to ʒi. of simple ointment. The strength may be rarely increased to ʒi. to ʒi. The acid is useful in chronic or subacute skin affections, where there is a superficial infiltration, and in certain scaly diseases. It will not do when the infiltration is deep. Its dangers are, its staining and its irritant properties. The acid has no anti-pruritic properties. It would be good in indurated acne, but for its staining the skin; caution should be used in applying the ointment to the face. In eczema it is useful, but should be combined with oil of cade or some other tarry oil. Two cases of obstinate sycosis had been cured by the acid. Ringworm of the body can also be cured by it.

Lichen, papular and scaling syphilides are also relieved by the same remedy. In psoriasis, however, the acid has achieved its greatest results. The speaker endorsed the high praise that had been given it for its usefulness in this disease.

The paper was referred to the Committee on Publication.

A paper, to be read by Dr. J. Solis Cohen, for Dr. W. T. Gadbury, of Yazoo City, Miss., on

ARTIFICIAL INFLATION AS A REMEDIAL AGENT IN DISEASES OF THE LUNGS,

was read by title and referred.

A paper was then read by Dr. Wm. Pepper, of Philadelphia, on a

FURTHER CONTRIBUTION TO THE LOCAL TREATMENT OF PULMONARY CAVITIES.

The chief indications for the treatment of pulmonary cavities are, cleansing, disinfection, and modifying the walls of the cavity. The use of inhalations, sprays, and direct injections has been employed, but, as regards the first two measures, without much success. There is one form of inhalation by which some good may be accomplished. This is by the continuous inhalation of medicated vapor. An instrument for doing this was shown by the speaker. It consisted of a kind of mask, attached to which is a small box containing sponge on which the medicated fluid is poured. This is tied over the mouth. The best medicines are carbolic acid, iodine, thymol, etc. With an instrument of this kind the bad breath due to putrid cavities, or bronchiectases, can be corrected, and probably good can be done in cases of chronic bronchitis.

It was not likely, however, that much could be done in pulmonary cavities by continual inhalation. The speaker, therefore, called attention to the value of direct injections into the lung cavities.

A number of cases were reported showing the value of this procedure. Lugol's solution, in the proportion of from ℥x., ℥xv. or ʒi. to ℥i. of water was used. In one case related the injections were given forty-eight times in fourteen months. The patient improved, and when he died some time afterward, from Bright's disease, the cavity was found to have been obliterated. Seventeen other cases were related or referred to, in which similar treatment was pursued, 291 injections having been made. Autopsies on some of the cases showed that contraction of the cavities was induced by the injections. Injections into caseous consolidation of the lung, in very bad cases, gave negative results.

The syringe used was like an ordinary hypodermic syringe, but had a larger barrel and longer needle. Lugol's solution and carbolic acid were the only agents suggested. The skin should be first chilled with ice; the injections should be mild at first. There is no danger in such injections, cough and pain being the only symptoms excited.

The paper being open for discussion,

Dr. Bennett, of Ohio, said that there seemed to be a failure in this new form of treatment to secure any general benefit. The healing of cavities was a thing that often took place spontaneously. The cases given by Dr. Pepper only showed that the method was harmless.

Dr. Whitney, of New York, asked if Dr. Pepper would recommend the method to the general practitioner.

Dr. Pepper said that the post-mortem cicatrices in lungs did not often indicate ante-mortem cavities, but rather areas of exudation. In 4,000 cases where there were pulmonary cavities, only 81 seemed to be contracting. Probably not five of these ever finally disappeared. Very few cavities ever healed up, and any method which would promote this healing would be of the greatest value. In the cases related, all other medication was suspended. The patients themselves almost always had great faith in the treatment. In regard to recommending the measure for general adoption, Dr. Pepper felt some hesitation, for he did not think that its value was yet entirely established.

Dr. Whitney said that as the indication for the use of injections was limited he did not think its practical value would be very great.

Dr. Bennett referred to a number of cases in which he had seen pulmonary cavities heal up under constitutional treatment. He thought that such treatment must be always the essential thing.

Dr. E. Cutter, of Boston, referred to some cases in which he had plunged needles into the lung and had seen no harm follow.

Dr. Russell, of Massachusetts, referred to twenty-four cases of gunshot wounds of the chest; twelve of these recovered so far that they could go home. He referred to this as illustrating the capability of the lung of standing severe injuries.

Dr. Wilson, of Ohio, spoke of the fact that phthisis is a constitutional disease and must be treated constitutionally. We may cure one cavity, but another one will appear. The disease cannot be cured by any local treatment.

The paper was referred, with a vote of thanks.

A paper on

THE TREATMENT OF SCROFULOUS DISEASES OF THE SKIN,

by Dr. John V. Shoemaker, of Philadelphia, was read in abstract. The speaker had used all the drugs usually employed in scrofulous diseases of the skin, such as cod-liver oil, iron, iodide of potash, etc., but had met with such poor success that he was led to try chlorate of potash. This had given him the greatest possible satisfaction, and he believed that it often acted almost specifically in the diseases in question.

A number of cases were presented, and one was read in full.

In young children suffering from enlarged and suppurating cervical glands, the best results will be obtained by gr. ii. to gr. iii. four times a day. This drug will increase the appetite, increase the weight, and improve the complexion. Such use of chlorate of potash in phthisis and scrofula was described by Dr. Harken in 1868. Dr. Schoemaker endorsed Dr. H.'s views and believed that it was the only effective remedy in many cases of scrofuloderma. The experience of Dr. Nicholson, who believes that the alkalies should take the place of iron in anæmia, is in consonance with the views of the speaker. Dr. S. believed that physicians should never recommend marriage among the scrofulous.

Dr. Pine, of Poughkeepsie, said that he had been using chlorate of potash considerably of late, among children suffering from slight attacks of scarlatina and from sore throats. He had been much pleased with the drug, and was glad to hear it endorsed as of value in other diseases.

Dr. Garrish, of New York, spoke highly of chlorate of potash in diphtheria, throat affections, and other diseases.

Dr. Ulrich, of Chester, Pa., said Dr. Schoemaker's experience was entirely different from his own. He had great faith in the drug in diphtheria and throat troubles; in scrofulous diseases, however, he had had no good results whatever. He had used it a great deal, and he thought he might just as well have

poured it down a rat hole as down his patient's throat

Dr. R. W. Taylor, of New York, asked what was meant by scrofulous diseases of the skin. He had been accustomed to look upon lupus, for instance, as a scrofulous disease, and he should be astounded to learn that chlorate of potash cured it. Dr. T. had used the chlorate of potash in certain diseases of the skin due to suboxidation, and with success. He would like to know, however, exactly what the skin diseases were that Dr. Shoemaker had cured.

Dr. Shoemaker said that he used the remedy in persons whose lymphatic glands were swollen or broken down, and the skin in a diseased condition over it.

Dr. R. W. Taylor said that the various forms of lupus were generally called the scrofuloderma.

Dr. Smirnow, of Brooklyn, expressed incredulity as to the great efficacy of chlorate of potash.

Further discussion followed by Drs. L. Duncan Bulkley, Whitney, and others. The paper was then referred as usual.

A paper was read by Dr. J. R. Uhler, of Baltimore.

ON RESTORATIVE REMEDIES.

The speaker described a very simple method of determining the amount of nitrogen (and urea) in urine. It consists in taking two bottles, one of which just fits into the other. The smaller bottle is attached by a wire to the cork of the larger one. Into the small bottle is placed urine; in the larger a mixture of liquor sodæ chlorinat., and common salt. The two bottles, one within the other, are first carefully weighed; they are then shaken and their contents mixed together. A decomposition follows, which results in the evolution of nitrogen. This gas is allowed to pass off, and the bottles with their contents are again weighed. The difference between the first weight and the second shows the weight of the nitrogen, from which may be calculated the weight of the urea.

Two or three other processes for determining urea, not quite so simple, but based on the same principle, were also shown.

Dr. Uhler then passed to the subject of foods, and referred to the recent experiments of Dr. Roberts on the digestive ferments, in which he had stated that milk and oysters were the only two foods that should not be eaten cooked. The oyster, he said, was a food which digested itself when taken raw.

The speaker showed a specimen of cod-liver oil, mixed with cheese, which quite effectually disguised its taste. The pungency of the cheese also aided the digestion of the oil. Specimens of cod-liver oil, mixed with bread, were also shown.

The process of the manufacture of extract of malt was described and its value endorsed. Dr. Uhler had proved by several experiments that it changed starch into glucose.

Preparations of pepsine had been tested by the speaker to see how great their value really is. Microscopic examinations showed that the various specimens in the market differed greatly in value. The fresh varieties are the best by far, and many of the others are unreliable.

Dr. Uhler had devised a new process by which he hoped the pepsin could be kept active in powder form. He covered the fresh moist stomach over with gypsum. When this hardened, he pulled it off and ground up the saturated plaster. This he had found was very active, and kept very well.

In conclusion, the uses of iron and digitalis were described. A description of the theory of the action of the heart, and of digitalis upon it was given and illustrated with diagrams.

The paper being concluded, it was voted to make Dr. L. D. Bulkley's paper, which was to follow, the special order for the next day at 2 P.M.

The Section then adjourned at 5.30 P.M.

SECTION ON SURGERY AND ANATOMY.

W. T. Bigger, M.D., Nashville, Tenn., Chairman.
C. Powell Adams, M.D., Hastings, Minn., Secretary.

THE PUNCTURE OF JOINTS.

Dr. Martin, of Massachusetts, renewed the discussion of Dr. Pancoast's paper. There was no question that puncture of joints was regarded by the profession at large as a *dernier ressort*, but in his experience it should be performed early. He added that there was no danger in this procedure. His own investigations on the vascularity of joints tended to confirm Dr. Pancoast's views on this important matter. Sir Benjamin Brodie was cited in support of the view of non-suppuration of cartilage, in inflammatory processes involving joints. Dr. Martin also showed his new adhesive plaster, made of india-rubber, in combination with burgundy pitch and balsam of tolu, and the Section was invited to take samples of it for test examinations. This plaster was devoid of all tendency toward deterioration. U. S. Army Surgeon's Adhesive Plaster was the name by which it was already known to some members of the profession.

Dr. Smith, of Philadelphia, suggested that measures should be taken to bring the plaster to the notice of the authorities of the pharmacopœia.

Dr. Nancrede, of Philadelphia, referred to Dr. Pancoast's paper, and said that already irritated cartilaginous surfaces must be kept apart by extension to facilitate healing.

Dr. A. C. Post, of New York, observed that he had for some time past been in the habit of employing fine sutures of black silk. An illustration was cited.

Dr. Pancoast, of Philadelphia, reiterated that the prime factor in treating articular affections was rest to the synovial membrane and not the removal of pressure from the articular cartilages.

Dr. Hinton, of Canada, thought the sensations of the patient were always the best guide in such instances.

Referring to external and internal urethrotomy, in connection with Dr. Pancoast's urethrotome, he said urethrotomy was too often performed. Very frequently it was a quite superfluous and always a very dangerous operation. Dilation was more satisfactory.

Dr. Pancoast entirely agreed with Dr. Hinton, and explained that his instrument was often used only for superficial nicking, followed by the use of bougies.

Dr. Campbell, of Vermont, asked how long the bougie was allowed to remain in the urethra.

Dr. Pancoast answered "as long as the individual exigencies seem to require."

COMPOUND COMPLICATED HARE-LIP.

Dr. James L. Little, of New York, read a paper on compound complicated hare-lip, illustrated by three cases. The patients were all brothers, aged respectively 22, 18, and 9 years. These youths also

showed cleft palate. No hereditary tendency was ascertained. Besides the boys, there were five girls in the family. These were perfect, while all the boys had the deformity.

One of the latter had died in infancy. The three remaining boys all showed the intermaxillary bone distinct from the superior maxillary and continuous with the nasal septum. It projected beyond the line of the mouth and was covered with a small tag of integument. The hard and soft palates were cleft. An account of the operations performed at St. Luke's Hospital was then given. The final results of the operations were demonstrated by means of photographs and wax-casts.

In the first case it became necessary to operate several successive times before a satisfactory result was obtained. The first operation was for the fissure of the hard and soft palates. Partial success. The next one was for the hare-lip. Perfect result. Some accessory operations were then performed, at varying intervals of time. In the second case, the inter-maxillary bone was first removed. Excellent result. The lip was then operated on with satisfactory result.

The third case resembled the preceding one. The inter-maxillary bone was first removed, and the columna formed in the usual manner. Some secondary operations became necessary, but the final result was a good one. The boy was exhibited to the Section.

Dr. Atlee, of Lancaster, spoke of cases which had occurred in his practice. A family was mentioned which contained seventeen members, afflicted with hare-lip.

Dr. Post, of New York, referred to the late Dr. Gurdon Buck, who had published analogous cases. Photographs of another case were also shown.

Dr. Vanderveer, of Albany, instanced similar cases, which spoke in favor of early operations. It was also stated that Sir William Fergusson always operated twice.

Dr. Atlee, of Lancaster, also strongly advocated early operations.

Dr. Westmoreland, of Georgia, said he had operated on a child only eight days old.

Dr. Sayre, of New York, mentioned a case where he had operated on a child four days old. The best time to operate was before the lips were actively employed for suckling. Dr. Van Buren had assisted at the operation. An anæsthetic was not employed. The exact mode of operation was then described.

Dr. McGuire, of Virginia, only saw one successful case in his practice.

Dr. Hamilton, of Ohio, had operated on a child twelve hours old. Other operations were also cited in support of Dr. Sayre's view concerning the advisability of early operations.

Dr. Goodwillie, of New York, showed casts representing an abnormal condition of the inferior turbinated bones, and described his experiments on erectile tissue in this locality. Wax models were also shown.

Dr. A. C. Post, of New York, read by title a paper on a case of torticollis rapidly and completely cured by open division of the sternal and clavicular origins of the sterno-cleido-mastoid muscle, followed by elastic traction.

A NEW ETHER-INHALER, AND A NEW FORM OF TRANSFUSION APPARATUS,

by Dr. Jos. C Hutchison, of Brooklyn. This paper also was read by title only.

Dr. D. H. Goodwillie, of New York, exhibited an apparatus for the inhalation of nitrous oxide mixed with air, and explained the method of its employment.

HIP-JOINT DISEASE,

by Drs. De Forrest Willard and E. O. Shakespeare, of Philadelphia.

This paper was read by Dr. Willard. It related to a case where death had occurred in the early stage of the disease. The specimen was exhibited and microscopical drawings shown. A microscopical preparation was also demonstrated. The origin and progress of the disease, the pathological appearances after death, and the pathological histology were successively discussed. Many interesting suggestions were made, both as to the pathology and treatment of hip-joint disease. Dr. Willard's splint, used in the treatment of this malady, was finally shown and explained. The splint was made by first taking a plaster cast of the limb in question.

Dr. John B. Roberts, of Philadelphia, read a paper

ON TAPPING OF THE PERICARDIAL SAC.

The operation, it was said, was proposed over two hundred years ago. The pathology, symptoms, and treatment now in vogue were alluded to. The fifth intercostal space about 5 cent. to the left of the median line, was considered to be the best place for the procedure of tapping. Large serous effusions gave the most brilliant results. The operation might be repeated if necessary. The canula could be left *in situ*, and the sac washed out with antiseptic solutions. Forty-two cases were mentioned, with fourteen recoveries and twenty-eight deaths.

Paracentesis of the pericardium would in future have to be performed at an earlier period than heretofore.

Dr. Dowell, of Texas, referred to a peculiar case where effusion was simulated by an entirely different pathological condition. In this instance tapping would probably have led to death

Dr. C. A. Leale, of New York, read a paper on

THORACENTESIS,

in which this operation was warmly advocated. Serous effusions were said to be amenable to treatment by using a trocar. In purulent collections, on the other hand, free incisions were advised. Continuous drainage might become necessary. Restoration of the pleura and lung to their normal condition after thoracentesis, was first considered. The spontaneous cure of empyema by discharge per bronchi was next alluded to. A case of empyema, entirely cured without the operation was mentioned.

The point of election for performing the operation was also referred to. Other points were then set forth, and the following conclusions presented:

Thoracentesis was easily performed, and required no special instruments.

It ranked among the surgical operations most conspicuous for saving of life.

Thoracentesis was justifiable to prevent pain and prolong life, even when an ultimate recovery of the lungs could not be expected.

Complete absorption had followed thoracentesis, when pus, air, or serum had been left in the pleural cavity.

The pleuræ might be restored to health after thoracentesis.

He the fever, the result of unhealthy decomposition, ought to be relieved by a free incision.

The author's recorded illustrations had shown that the operation could be successfully performed on the nursing infant, as well as on the adult. That it could be resorted to when both lungs were diseased, and even in far advanced pulmonary consumption. That relief from a distressing suffocation could be obtained, life prolonged, and painful death averted.

CYSTOTOMY FOR CYSTITIS IN THE MALE.

Dr. Robert F. Weir, of New York, read a paper upon the above subject, which embodied the results of forty-seven cases, in which the operation of cystotomy for cystitis had been resorted to. It opened with a short but interesting historical account of the operation, which was presented to the profession by the venerable Dr. Willard Parker, in 1867, in the "Transactions of the New York State Society." Dr. Parker's claims to priority in this matter were shown to be valid.

Of the 47 cases collected by Dr. Weir 13 died, 10 of which deaths were due to advanced kidney diseases, and only 3 to the operation itself. Of the 34 cases that recovered, 23 were cured by the operation absolutely, or were so much relieved as to be able to return to their vocations, to hold their urine for several hours; 7 were relieved to a moderate extent, and 4 completely failed in affording any benefit. Not all, however, were treated by lateral lithotomy, in only 32 cases was this method used, the bilateral incision five times, and the median ten times. When the median section was resorted to, in six of which a cure resulted, either a supplementary incision (three times) into the prostate was done, or the finger (once) or two fingers (once) were introduced into the bladder, or by a bivalved speculum the vesical orifice was stretched (five times) to the diameter of an inch. Hence, when the median operation was resorted to, incision or laceration of the prostate was of necessity conjoined with it. A permanent fistula was more apt to occur after the median operation. To afford success, not only a free opening into the bladder, preferably by the lateral incision, must be made, but also the wound should be kept open as long as possible by either introducing the finger or a large tube frequently during the first ten days after the operation, and after that time oftentimes a tube can be permanently borne. Dr. Weir also cited a number of cases where, in the performance of lithotomy or cystotomy, the hypertrophied median lobe or other portion of the prostate, had been removed without enhancing the risk of the operation, and advised, after consideration of the subject, that an endeavor should, if possible, be made in the performance of cystotomy in the aged (or past fifty-five) to remove any enlargement of this gland.

Dr. Gouley, of New York, remarked that no patient would get well after cystotomy unless there had been a free division of the urethro-vesical orifice. Rest alone would not effect a cure. Mercier, it was said, had reported about 400 cases of such division of the urethral valvule. The prostatic valvules were also incised by this physician. In some cases, however, even valvular division would not produce the desired result of an effectual cure.

Dr. Dawson, of Cincinnati, concurred in the views expressed by Dr. Gouley, and cited an interesting case which had been intractable to all the methods he had employed.

Dr. Mynter, of Buffalo, also mentioned a similar case. He had performed cystotomy, but after closure of the wound the patient's troubles had returned.

Dr. Hart, of Plainfield, instanced a case where a drainage tube had been placed in the rectum, allowing the residue urine to pass off in that way.

Dr. Hamilton, of Buffalo, said he had given infinite relief to a woman who had suffered intensely for a long time from severe cystitis. An ordinary soft catheter was allowed to remain in the bladder till relief was afforded, and permanent cure followed.

Dr. A. C. Post, of New York, referred to a case which had been commented upon by the author of the paper under discussion. The actual cautery had been applied in this case at two points over the hypogastric region. An absolute cure followed.

After some discussion on publication of papers, it was resolved, on motion of Dr. Dawson, that a committee be appointed to report what alterations, if any, were necessary in the by-laws, to enable members to publish papers read by them either in whole or by abstract, in advance of the publication of the annual volume of the Transactions of the Association, and that Dr. Bronson be made Chairman of the committee.

The President also appointed Drs. Dawson, of Ohio, and Pancoast, of Philadelphia, to act on this committee.

SKIN GRAFTING.

Dr. L. Turnbull, of Philadelphia, read a paper on skin grafting, with illustrative cases. Photographs were also passed around for inspection. This paper had been previously read before the Philadelphia County Medical Society, December 17, 1879, but it had not been published in the Transactions of that Society. After giving the history of the operation, Dr. Turnbull referred to the physiology of skin grafting. Some suggestions in reference to the success of the operation were also given.

Dr. Buchanan, of New York, related a case of great interest in this connection, in which 200 grafts had been taken from an amputated thigh, three hours after its removal, and inserted into an immense ulcerated surface over the breast of a woman. A stimulus had been imparted to the edge of the wound by the implantation of these cutaneous bits. Later on, 500 grafts were placed on the ulcer. The extent of the wound considerably diminished after these procedures. Some practical suggestions concerning the modes of performing these operations were also given. In addition, he said, that to Dr. Van Wagenen belonged all the credit of originality in this matter.

Dr. Mattison, of Brooklyn, referred to some similar case, which had been much benefited by grafting.

On motion it was resolved that Dr. Martin, of Massachusetts, be allowed a half hour to-morrow for the purpose of reading a report on the use of his bandage. It was also resolved to append Dr. Burchard's communication to the reports of the Section.

A paper, by Dr. D. M. Barr, of Philadelphia, on a new inhaler, was read by title only.

Dr. W. A. Byrd, of Quincy, Ill., then read his paper on

LAPAROTOMY AND COLOTOMY, WITH FORMATION OF ARTIFICIAL ANUS FOR INTESTINAL OBSTRUCTION.

The case was that of a farmer, aged 43, who had suffered from enteritis for some months. After de-

scribing the operation in all its details, the following conclusions were reached:

No one should be allowed to die from intestinal obstruction without, at least, an exploratory incision.

If there was much distention of the bowels with gas an aspirator should be used, as intestinal paralysis might be produced from prolonged over-distention.

In occlusion, in cases where abdominal section was contraindicated, an artificial anus should at once be established. Proper rectal alimentation and medication very materially aided the patient's recovery.

A quotation from Mr. T. Bryant closed this paper. It was to the effect that it was not required of the surgeon to diagnosticate the precise cause of the obstruction so long as the diagnosis of its existence could be determined.

Dr. Gouley, of New York, agreed with Dr. Byrd in his condemnation of delay in doubtful cases. Still, he said, time must be given to make sure of the diagnosis. A case was cited where delay had unquestionably led to death. An operation in this instance would doubtless have saved the patient's life. Forty-seven other cases were instanced with only one recovery, and this in a case where an operation had been performed.

Dr. Dawson remarked on the difference in danger between cutting into a previously unirritated peritoneum and one where continual irritation had already established a comparative tolerance of exciting factors. Some cases bearing on the subject under discussion were then adduced. Fluid injections were also recommended preparatory to severer measures. Sometimes Dr. Dawson had found the fluid injected into the rectum escape at the mouth. Spontaneous cure might occur. Cutting into an acutely inflamed peritoneum was too dangerous a practice to justify a universal adoption of laparotomy for acute obstruction of the intestines. The difficulty of diagnosis in many cases of this kind was dwelt upon. He said that laparotomy should remain a last resort after failure of all other methods.

Dr. Jewett, of Massachusetts, stated that he had found no difficulty in introducing rubber tubes into the rectum to the distance of three feet. A case of impacted fæces, illustrating the utility of rectal injections of warm water by means of such rubber tubes was described.

Dr. Hamilton, of Ohio, spoke on the value of the conical elastic bougie in rectal stricture, and cited a case which had occurred in his practice.

Dr. Byrd, of Illinois, mentioned some additional cases.

Dr. Gouley, of New York, said that abdominal section should be practised before peritonitis had set in. He then described a case which had lately come under his observation that clearly showed that the policy of waiting was disastrous. This was an acute case.

In subacute and chronic cases post-peritoneal abscess would gradually develop, and such cases did not indicate abdominal section.

Dr. Weist, of Indiana, suggested that in cases where an operation was not practicable, great efforts would not always be rewarded by success. The let-alone policy had, in his experience at least, sometimes secured the most gratifying results.

Dr. Doyle, of Syracuse, N. Y., showed a new appliance for the treatment of club-foot and other deformities.

The Section then adjourned at 7 P.M.

SECTION OF OBSTETRICS AND DISEASES OF WOMEN.

G. M. B. Maughs, M.D., St. Louis, Mo., Chairman.
Robert Battey, M.D., Rome, Ga., Secretary.

The first paper was read by Dr. Joseph Tabb Johnson, of Washington, D.C., on

MANAGEMENT OF THE THIRD STAGE OF ABORTION, WITH RETENTION OF PLACENTA AND MEMBRANES.

After some general remarks on the subject of abortion and its treatment, he stated that the chief indication in the latter was to completely empty the contents of the uterus as early as possible. This view he regarded as important because, so far as he had been able to determine, a large number of the profession still held the opposite opinion. In support of it he quoted Dr. Angus MacDonald and other authorities.

He then cited a number of cases occurring in his own experience which showed the necessity for prompt action and the danger of leaving the placenta and membranes *in situ*. The majority of these he saw in consultation, after the membranes and placenta had been retained for a considerable time.

Incidentally he alluded to some of the unfavorable effects of ergot in certain instances, occurring in the early months of pregnancy, especially the intense pain to which it gave rise, and the closure of the os by the oxytocic effect of the drug, commencing in the lower segment of the uterus.

The point which he wished to emphasize was, that the patient was not safe until the uterus was completely emptied and firmly contracted, and that, as a rule, the physician should never leave the house until the desired results had been accomplished. After septicæmia had been set up by the retained placenta and membranes, it was often too late to interfere.

Dr. Sherman, of St. Lawrence, said that he commended the paper most heartily. He had been brought up to consider this practice correct, and in the only instance in which he had neglected it, the case had resulted fatally.

Dr. G. W. Christian, of Texas, and Dr. Erich, of Baltimore, spoke in the same strain. The latter related two cases showing the bad results of leaving the placenta *in situ*. In the removal of small fragments of the placenta or membranes he advocated the use of Thomas's short curette, which acted much more efficiently than the unaided finger, and it was also a perfectly harmless instrument.

In both cases mentioned prolonged menorrhagia ensued upon the abortion, and both were completely relieved by the dilatation of the os and the removal of the fragments of the placenta with the curette. In neither instance was there danger of septicæmia, however, as the portions of retained placenta remained living. He advised the use of anæsthetics in all cases of retained placenta, not only for the relief of the pain, but for the more thorough performance of the manipulation requisite.

Dr. Weeks, of Massachusetts, thought that the paper should have been devoted more to the *management* of the third stage, as it was important to know just how and when to carry out active interference.

Dr. Morris, of Baltimore, begged leave to say a word for the men of a past generation, who practised before septicæmia was recognized as it is to-day. He thought that the placenta should be allowed to remain as long as no injurious effect resulted. Na-

ture was quite competent to manage the great majority of cases of abortion occurring in the early stages of pregnancy. This matter of retained placenta he considered a needless bugbear in the eyes of many of the profession. He considered that the bad effect of this teaching was, that it induced the young practitioner to plunge into needless meddlesome midwifery.

Dr. S. T. Hubbard, of New York, advised, like the last speaker, that these cases should be left alone. His practice was to leave a tampon medicated with alum when there was much hemorrhage) in the vagina, and go away without feeling any uneasiness, and he had never seen any bad results from it. He considered that there was great danger of setting up metritis or metro-peritonitis by this active interference in abortion, in the early stages of pregnancy.

Dr. Thomson, of Montreal, also thought that there was little need of operative procedure under ordinary circumstances. When it was necessary to interfere, he thought the finger was better than the curette; especially as many cases of abortion were due to the presence of uterine tumors, and these could not be detached by means of the curette.

Dr. Maury, of Massachusetts, took exception to the views of the last few speakers. If a retained placenta was liable to produce septicæmia, it was our plain duty to remove it as soon as possible. He had known of many instances of death following such conditions, and therefore he considered that this was a most important question. He believed thoroughly in the use of the curette in such instances.

Dr. Weeks considered it very difficult to remove the entire placenta before it had become detached; and thought that great injury often resulted from the attempt to detach it. He advised the use of warm, carbolized water until nature had accomplished the detachment.

Dr. Erich spoke of the importance of examining all the clots passed, in order to find the ovum. His rule was to interfere whenever hemorrhage continued more than a week; which indicated that a portion of the ovum still remained.

Dr. H. T. Hanks, of New York, thought that in all cases where, after abortion in the early stages of pregnancy, a portion of the placenta or membranes remained, there was great danger, and it should by all means be removed. He stated, furthermore, that it was as easy to perform this procedure as to put in a properly adjusted tampon. It ordinarily took but two minutes to dilate the os (with a hard rubber, or other dilator), and two minutes more to remove the retained placenta.

Dr. Isaac E. Taylor, of New York, read a paper entitled

GASTRO-HYSTERECTOMY; BEING REMARKS ON AND EXHIBITION OF A FULL-TERM UTERUS, REMOVED BY LAPAROTOMY.

The writer dwelt for some time on the history of the operation, and then went on to speak of the case referred to in the title. The patient had a kyphotic pelvis, and five years before Dr. Taylor had delivered her by ovariotomy. There were two modifications of the operation of gastro-hysterectomy, Porro's and Müdder's, and he had added a third. Confident that there was a ductile isthmus between the body and the cervix of the uterus, after opening the abdomen and delivering the child by Cæsarian section, he placed two ligatures, almost an inch apart, around the pelvic and cut off the uterus between the two. Unfortunately, however, retraction of the arteries took place, and he found it necessary to put on a ligature with the "cobbler's stitch." The patient did perfectly well for some time after the operation, but on the seventeenth and eighteenth day phlegmasia dolens made its appearance. This subsided before a week but she was still ordered to remain strictly in bed. On the twenty-seventh day, however, she was attacked by cardiac thrombosis, and died in a few hours.

This unfortunate result, he believed, had no connection whatever with the operation performed. In conclusion Dr Taylor spoke of the various advantages of gastro-hysterectomy in deformed pelvis. Out of the fifty cases now reported, twenty-one had recovered. In connection with the paper, Dr Taylor exhibited the uterus removed, which he regarded as affording valuable proof in confirmation of his views as to the structure and action of the tissues of the lower segment and neck of the uterus, prior to and during parturition), and also a number of photographs of the patient and specimen.

At the conclusion of Dr. Taylor's remarks, Dr. Maury, of Massachusetts, exhibited a

NEW UTERINE DILATOR,

which operated by graduated elastic tension, and could also be employed by means of a special attachment for restoring the inverted uterus.

Dr. T. Gaillard Thomas, of New York, then read a paper entitled,

CLINICAL CONTRIBUTIONS TO THE SUBJECT OF REMOVAL OF THE UTERUS, IN WHOLE OR IN PART, BY THE EXTIRPATION OF TUMORS CONNECTED WITH THAT ORGAN.

There were three circumstances, he said, under which complete extirpation of the uterus might now be regarded as a legitimate, and often a very necessary procedure. 1. On account of malignant disease. 2. As an addendum to the Cæsarian section, after the method of Porro, and, 3, in order to render practicable the removal of tumors which took their origin in its tissues, or which arose in the ovaries, and whose attachments were too firm to be broken.

It was with the third class of these indications that the present paper was concerned. After quoting the opinions of Barnes, Emmet, and other authorities, who regard such operations as still *sub judice*, he stated that he was to-day giving evidence in favor of a young and feeble cause. An honest conservatism was the bulwark of scientific surgery; but, at the same time, there was no virtue so likely to run to dangerous extremes. In this connection, he alluded to the splendid triumphs of ovariotomy within the last few years, and said that it was with the desire to put upon record further testimony from which might be drawn reliable deductions as to the propriety of removing solid or cystic tumors by laparotomy, when such removal involved the necessity of ablation of the uterus, that this clinical condition was made.

The paper embodied the results of seven cases, in one of which the whole fundus, in another the whole body, and in five of which the entire uterus was removed. Four of the tumors demanding the operation were large solid fibroids with no cystic elements. One was a fibro-cyst, partly solid and partly fluid, and one a peculiar ovarian tumor which, developing between the layers of the broad ligaments, lifted the

uterus entirely out of the pelvis, and made it a mere addendum to their walls.

Out of the seven cases four recovered and three died. The three fatal cases were all operated on for large solid tumors. Of the four successful ones, one was a case of solid uterine fibroid, one a case of large fibro-cyst, and two cases of ovarian cysts with large amounts of solid material in their walls. On recognizing this fact it was to be borne in mind that a tumor susceptible of diminution of size by tapping was not so dangerous for laparotomy as one which, being entirely solid, involved the necessity for a long abdominal incision.

As far as Dr. Thomas knew, no one in this country had had so large an experience, and, he was glad to add, so gratifying a success in this formidable operation as their distinguished fellow, Dr. Gilman Kimball, of Massachusetts. He removed the uterus thirteen times (nine times for solid and four times for fibro-cystic tumors), with the excellent result of eight recoveries and five deaths. In some of his cases the whole, in others a part only, of the uterus was removed.

During this session the following committee in regard to papers presented was appointed: Dr. Bartlett, of Wisconsin; Dr. Marcy, of Massachusetts, and Dr. Morris, of Maryland.

SECTION ON DISEASES OF CHILDREN.

Dr. S. C. Busey, of Washington, D. C., Chairman.
Dr. Frank Woodbury, of Philadelphia, Secretary.

The new temporary Section on Diseases of Children was organized with an attendance of about forty members. On motion of Dr. A. Jacobi, of New York, Dr. S. C. Busey, of Washington, was elected Chairman; and Dr. Frank Woodbury, of Philadelphia, was elected Secretary of the meeting.

The Chairman said that this new Section owed its existence to the Committee of Arrangements, and to the need that has been felt for such an opportunity for special studies of diseases of children.

THE CLAIMS OF PEDIATRIC MEDICINE.

An address, by Dr A. Jacobi, of a very appropriate and interesting character, reviewed the claims of pediatric medicine. In commencing the address, he very pointedly referred to the difference between special practice and special study. His statements of the gradual encroachments of the various specialties upon the domain of the general practitioner created some amusement. In replying to the question: "What is left for the general practitioner?" he said, "The general practitioner will in future obtain, as the legitimate province of his practice, the male half of mankind, and very old women, and very young children, provided he will keep his hands off their eyes, ears, nervous system, lungs, and heart, urinary organs, venereal diseases, nose, pharynx, larynx, skin, hair, and corns." He pointed out the fact that the multiplication of specialists is due, first, to the immense progress of the science; and, secondly, to the attainment of special skill and dexterity by certain individuals, that leading them to select certain branches as their favorite practice.

The pathology and therapeutics of childhood do not mean the same as in adults; the difference is not merely a matter of dose, as is frequently supposed. The light that has been recently thrown upon infantile disorders, due to malformation, defective evolution, or to abnormal development, has led to great improvement in the methods of treatment. The peculiar characters of infantile bowel diseases, pulmonary affections, and zymotic diseases, require special study of children's diseases for intelligent practice. Functional disturbance also acquires more prominence in disorders of children than in adults. Since twenty per cent. of children do not survive the first year, and a very large proportion of these unfortunate cases of premature death are due to defective feeding, it was pointedly inquired whether special study is not required for the practice in this field of medicine, whose importance it is difficult to overestimate. A special section on the pathology of children would include the consideration of questions of hygiene, such as feeding, nursing, clothing, and baths. He concluded by declaring that the establishment of this section was required by practice even more than by theory, as the majority of the general practitioner's patients are infants and children with a symptomatology of their own, diseases of their own, and therapeutics adapted to their special requirements.

Dr. Jacobi moved that this meeting recommend the American Medical Association to adopt such an amendment to the Constitution as would create a Section on Diseases of Children.

Dr Busey, of Washington, and Dr. E. W. Schauffler, of Missouri, spoke in favor of the resolution, which was unanimously carried.

BRIGHT'S DISEASE IN CHILDREN.

Dr. S. C. Busey, by invitation, read a paper entitled "Bright's Disease in Children Caused by Malaria," in which he gave the clinical reports of three cases of children suffering from malarial cachexia, who subsequently presented all the appearances of marked renal disease. In these cases life is usually terminated by uræmia, pulmonary œdema, or cardiac insufficiency. Nutritious and easily digested food, and chalybeates constitute an essential part of the treatment; the citrate of iron and quinia is generally preferred in these cases. Digitalis (the tincture, or in the form of digitalin), cathartics such as elaterium and compound jalap powder, are especially indicated. In dropsy, Eberle's formula (without the tartar emetic) he had found very valuable. Diuretics are indispensable in proper cases, but unreliable in many.

Diaphoresis by the hot-air bath, or by pilocarpine is a useful adjunct to the treatment; and multiple puncture for the relief of œdema, was much lauded as a means of relief.

Dr. Schauffler, of St. Louis, did not see the direct connection between malaria and Bright's disease, and thought that the proposition was not proven.

Dr. Busey disavowed supporting the view that there was any direct relationship between renal disease and malaria; but if the latter be neglected it may lead to organic changes in the tissues, of which nephritis is a sequel.

Dr. Jacobi suggested that in such cases the renal disorder might be caused in two ways: first, lowering of circulation leading to albuminuria; though this is not inflammation; a spontaneous thrombosis may, however, occur from debility of the circulation under such circumstances, which might be the centre for such inflammation; malaria leads to extensive destruction of red-blood cells and the pigment circulating in the blood is known to lead to embolism

in other organs, and may give rise to nephritis, for there are some cases on record of Grainger and Rosenstein in which nephritis was due to malaria.

Dr. James L. Greene, of Elizabeth, N. J., reported a case of

CONGENITAL MULTIPLE LYMPHECTASIA,

in a male, born at eight months of utero gestation, who presented at birth a large cystic tumor upon the posterior portion of the pelvis. In the abdominal region in front, and at the right side, were two other cysts which had no connection with each other, or with the posterior tumor. Two days later the fluctuating tumor was aspirated and 120 grammes of fluid removed, which was clear, straw colored, specific gravity, 1007, slightly saline, and albuminous (about ½ on boiling); nothing but a few blood corpuscles were observed under the microscope. In ten days the sac refilled to its former size. Dr. A. Jacobi now saw the case and pronounced it one of lymph angiectasis, and recommended removal of a small portion of the fluid, and injection of a small amount of iodine. On two subsequent occasions this operation was repeated, very little disturbance being produced; the slight uneasiness of the child passed away in two hours. This tumor has considerably diminished in size, but the tumors in front, upon which no treatment was attempted, have increased, and a small one has been developed upon the left hip opposite the acetabulum.

Dr. Busey, being invited by Dr. Jacobi to discuss the paper, spoke at some length upon the pathology and treatment of lymph tumors, and said that a lymph tumor may be distinguished from varicose veins by the multiple character of the former, and by the isolation of the latter. If the vascular connection of the tumor can be reached, so that they may be obliterated, a good result may be hoped for. If treatment is neglected, the patient generally dies from phthisis after puberty.

Dr. Jacobi said that since the tumor is now smaller than at the beginning, the tincture of iodine injections should be continued, and more frequently repeated, being careful, however, not to excite too much febrile reaction in the child. He distinguished two forms, one in connection with lymph trunks, and the other isolated. In the former the injection of iodine is the best treatment; the latter kind may be extirpated, and he had twice dissected out such isolated tumors in adults.

A variety of methods of treatment by ablation and actual cautery, pressure, slow drainage, and other plans, were suggested.

Dr. Schauffler reported a successful case of excision of two such lymph-tumors, in the practice of Dr. Taylor, of Kansas City, since deceased. The child recovered from the operation, but subsequently a hard brawny growth appeared, like elephantiasis, which the same surgeon removed by dissection. The patient died on the second day without obvious cause, having completely rallied from the operation of the day before.

The Chairman of the Section, Dr. Busey, was authorized to present to the General Session, tomorrow, the resolution passed by this temporary Section, requesting the adoption of an amendment to the Constitution, creating a permanent Section on Diseases of Children.

The papers read were referred to the Committee on Publication.

SECTION ON MEDICAL JURISPRUDENCE, CHEMISTRY, PSYCHOLOGY, STATE MEDICINE, AND PUBLIC HYGIENE.

James P. Hubbard, M.D., Richmond, Ind., Chairman.

Thos. P. Wood, M.D., Wilmington, N. C., Secretary.

FIRST DAY, TUESDAY, JUNE 1st.

The Section was called to order by the Chairman at 2.15 P.M.

A paper by Dr. C. R. Drysdale, of London, Eng., on the

DEATH RATE OF THE RICH AND THE POOR,

was read by the Secretary in the absence of the author. He stated that the death-rate was higher among the poor, because of the low wages which they receive. Statistics were given to show that in countries where the people were prosperous, as in New Zealand and Australia, the mortality was not so great. Alcohol had been cited as one of the frequent causes of high death rates. This the author sought to disprove by means of various statistics. As to the mortality of trades, it was not the trade of itself that caused the increased number of deaths, but the small amount of wages that was given, insufficient for persons engaged in them to provide for the necessaries of life. In conclusion, the author said, if we wished to lower the death-rate, the birth-rate must also be lessened.

On motion, the paper was referred to the Association, with a request for its publication.

The next paper, on the

NATIONAL BOARD OF HEALTH,

was read by the author Dr. J. S. Billings, U.S.A., in which a summary of the formation of that Board was given, together with the work done by it, also its objects and purposes. In the course of the paper Dr. Billings recommended that the Chairman should appoint a Committee from the Section to report to the Association on several matters looking toward co-operation with the National Board.

On motion, the paper was referred to the Association, with a request that it be published. At a later stage of the proceedings, the chairman appointed Drs. A. N. Bell, of Garden City, N. Y., Thos. Antisell, of Washington, D. C., and E. M. Moore, of Rochester, N. Y., as a committee to carry out Dr. Billing's proposals.

The next paper, on

THE RELATIONS OF THE MEDICAL AND LEGAL PROFESSIONS TO CRIMINAL ABORTION,

was read by the author, Dr. E. H. Parker, of Poughkeepsie, N. Y. The article was based on three cases of criminal abortion, in two of which the parties implicated escaped punishment, in the third the physician who operated was convicted, but pardoned before completing one-half of the term for which he was sentenced. The main object of the paper was to rid the community of the prevalent idea that abortion was not a grave offence. He advocated that the full penalty of the law should be inflicted. In concluding, the following resolutions were offered:

"1. Abortion should never be brought on by the use of medicinal or instrumental means, unless necessary to the safety of the mother, in consequence of pathological complications.

"2. The destruction of the fœtus in utero for any

other reasons properly ranks with other forms of murder.

"3. Abortion produced artificially always places the mother's life in jeopardy, and thus becomes a double crime.

"4. The severe punishment of the operator, whenever possible, without any probability of executive clemency, is due in justice to the honorable members of the profession, and yet more to the community at large."

The discussion which followed was participated in by Drs. Antisell, of Washington, D. C.; Stevenson, of Poughkeepsie, N. Y.; and Edwards, of West Virginia, all of whom held that the law was already sufficiently explicit on the subject. On motion of Dr. J. M. Jones, of Washington, D. C., the resolutions were, on division, laid upon the table, and the paper was referred to the Association, with a request for its publication.

The next paper, on

UNSANITARY ENGINEERING AND ARCHITECTURE,

was read by the author, Dr. A. N. Bell, of Garden City, N. Y. Details were given of the defective sanitary arrangements of various public buildings and the means of remedying it. The paper was discussed by Drs. Antisell, of Washington, D. C.; Whitney, of New York State; Mead, of Philadelphia, and Moore, of Rochester, N. Y., without eliciting any new facts. The paper was referred to the Association, with a request for publication.

On motion, the Section adjourned at 4.50 P.M.

Second Day—Wednesday.

The Section was called to order by the Chairman at 2.20 P.M.

The proceedings were opened by the reading of some resolutions by Dr. A. Clendennin, of Fort Lee, N. J., which had been passed by the Association. They are as follows:

"Whereas there have been many complaints as to the centralized imperial character of the present National Board of Health; and, whereas, the bills which have been pending before Congress for the increase of the executive power of the present board have been withdrawn,

"Therefore, be it resolved that the proposed act, entitled an act to amend an act . . . to create a Board of Health for the United States be referred to the Section on State Medicine and Public Hygiene for its consideration and report."

The act was then read, the main provisions being that it abolishes the present Board of Health, and in its place substitutes a board composed as follows: One medical officer each from the Army, Navy, and Marine Hospital Service; the chief officer of the Weather Bureau; also one officer each from the Engineer Corps, and Department of Justice. These to be appointed by the President, with the advice and consent of the Senate. Each State or Territory to be represented by a member of its State Board of Health, when such exists, who shall be appointed by the Governor of the State or Territory; and also an additional member selected from the Board of Health of the most important seaport in such State. There shall be no more than two members from each State, each of whom shall receive ten dollars per diem when serving. Then follows details as to the duties and powers of the board.

Dr. Edwards, of West Virginia, offered resolutions to the effect, that the passage of the bill would be impracticable and unadvisable, and also, that the present National Board is satisfactory in its workings and organization.

Dr. Billings, U. S. A., said that the present organization was as good as could be obtained from Congress. He spoke of the cumbrous character of the proposed board, as well as the extra expense involved, the cost for each day's sitting being over eight hundred dollars, exclusive of travelling expenses.

Dr Clendennin said that the National Board had asked for additional powers which Congress had refused to grant, and that the bills had subsequently been withdrawn by the Board. He also stated that the proposed bill sought to remedy existing defects.

Dr. Billings made some further remarks, in which he showed that three bills had been introduced during the present session of Congress, one had been passed; another, which the Board did not approve, had been shelved, as well as the third one, which conferred slight additional powers.

Drs. A. N. Bell, of Garden City; E. M. Hunt, of Metuchen, N. J., and E. G. Janeway, of this city, participated in further discussion, after which Dr. Edwards' resolutions were passed.

In the absence of Dr. R. C. Redzie, of Lansing, Mich., a paper by him on the

TEMPERATURE OF LIVING ROOMS,

was read by the Secretary. There was no discussion.

Dr. A. L. Carroll, of New Brighton, N. Y., read a paper on

THE PERSONAL FACTOR IN THE ETIOLOGY OF PREVENTIBLE DISEASE.

The author spoke of there being two factors to be considered in all preventible diseases, viz.: the exciting causes or predisposing influences and the susceptibility of the patient. There was a marked proclivity of some persons to being affected with certain diseases, when others exposed to the contagion would remain free from the malady. Examples of such were given. A third factor often exists, formerly spoken of as the "epidemic constituent of the atmosphere," when there was was increased tendency to the reception of contagion. This is seen when persons escape from attacks of disease, at one time, and are attacked at another season, when the system is more susceptible to the effects of the person. There was no discussion.

Dr. E. C. Angell, of this city, then read a paper on

HOT-AIR BATHING AS A MEANS OF PROMOTING HEALTH AND PREVENTING DISEASE,

in which he gave an account of baths in different countries, and spoke of the lack of bathing accommodations for the poorer classes in this city. There was no discussion.

An abstract of a paper on

MICROSCOPICAL SECTIONS FROM CASES OF DISEASES OF THE BRAIN AND SPINAL CORDS,

was read by Drs. Chas. R. Mills and Carl Seiler, of Philadelphia. Numerous sections through the cerebro-spinal matter were shown, which had been taken from the following cases—one of posterior spinal sclerosis terminating in general paralysis of the insane; one of hydrocephalus; two of epilepsy, and one of hydrophobia.

On motion, the Section adjourned at 4.55 P.M.

SECTION OF OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

Dr. Lawrence Turnbull, of Philadelphia, Chairman.

Dr. Eugene Smith, of Detroit, Secretary.

The second session of this Section was called to order by the Chairman at half past two o'clock. A paper entitled

THE THERAPEUTIC VALUE OF THE GALVANO-CAUTERY IN DISEASES OF THE NASO PHARYNX,

was read by Dr. W. H. Daly, Pittsburg, Pa. The author proceeded to elucidate the application of the galvano-cautery in destruction of the turbinated bones, granulation tissue, and adenoid growths, alluding to its possible accidents, as erysipelas, destruction of the septum nasi, eschar of the mouth of the Eustachian tube, with consequent otitis media purulenta and perforation of the membrana tympani. Dr. D. has used the cautery extensively in these cavities with success. Subjective and objective symptoms following its use were detailed, as, for instance, pain in the eye of the same side when the cautery is applied to the anterior ends of the turbinated bones, pain in the opposite ear when the cautery is applied farther back, etc. It is found that the more posterior the application the more insensitive are the parts. Some patients exhibit symptoms of approaching chill and fever after the application of the galvano-cautery. Dr. D. doubts its general acceptance on account of its expense and capricious behavior; its application, however, is attended with less pain and more surety than the usual caustics, nitrate of silver, caustic potash, etc. No remarks followed the reading of this paper.

Dr. H. Knapp proceeded to a demonstration of models to illustrate

THE REFRACTION OF LIGHT BY ASYMMETRICAL SURFACES,

to be followed by remarks on the determination and correction of astigmatism.

The principles of astigmatism are well known. Refractions from asymmetrical surfaces, and Sturm's focal intervals were detailed on the blackboard. Intermediate surfaces between the principal meridians have no foci. Suppose these surfaces are applied to the cornea; as these surfaces are rotated around an antero-posterior diameter, a parabolic ellipsoid is formed, the normals of whose principal meridians (vertical and horizontal) form regular surfaces, and have constant foci; but the intermediate meridians furnish in rotation no regular planes; this irregularity of planes of the intermediate meridians makes the location of focal points impossible. An ellipsoidal spheroid was introduced with vertical, horizontal, and intermediate meridians represented by pins, by which it was easy to see that the last-named planes were irregular and "askew" (K.).

Sturm's model makes the demonstration of ametropia possible, but not that of astigmatism. The familiar model of Helmholtz renders the demonstration of astigmatism possible, as may be seen by the different adjustments of the safety pins upon the strings.

With this theoretical demonstration the statement was made that the determination of astigmatism was possible by the direct application of these principles. Dr. K. always uses Snellen's test-types, first applying spherical glasses and then correcting the refinements of refraction by the successive application of weak cylindrical glasses, as in the ordinary way.

Schweigger and Scholer, of Berlin, determine astigmatism with a Stokes' lens. Scholer uses also a double disked ophthalmoscope, one disk containing spherical, the other cylindrical lenses, which is not practical, nor is the Stokes lens. The latter, however, is used by Horner, of Zurich, one of the most practical European oculists. The old principle of endeavoring to see the smallest retinal vessels in the horizontal images is the most correct one to follow. K. introduces a model illustrating three points of retinal focalization at different positions on the same vertical meridian.

A vertical line, divided into three colored threads, gives dispersion lines, and final dispersion images in the same vertical direction, but these images are superposed over each other. Dr. K. deduces from this the use of simple spherical lenses in the ophthalmoscope disk, as the most feasible. A case was detailed of compound hyperopic astigmatism in the right eye, and of simple hyperopic astigmatism in the left eye of the same patient, which was diagnosed within $\frac{1}{24}$ Eng. or 0.5 dioptry. Dr. K. does not correct a power of astigmatism less than $\frac{1}{24}$, as the physiological astigmatism is from $\frac{1}{24}$ to $\frac{1}{12}$. The scope of this paper was happily attained in so far as it served to elucidate the interesting subject of relief for astigmatic patients. The physics of astigmatism as brought out years ago by Airy and Young, and studied latterly by Helmholtz and Knapp, have not changed; to correct spherical aberration in astigmatic eyes by a system of glasses, constructed after proper scientific and mechanical laws, is the aim of the oculist.

Dr. Smith, the Secretary, presented an enucleated eye, in which there was a bony degeneration of the lens, or an osseous proliferation proceeding from the choroid. The eye was shrunken from preservation in spirits.

Dr. S. S. Jones, of Chicago, volunteered a paper

ON THE INTRODUCTION OF LIQUIDS INTO EUSTACHIAN TUBES AND MIDDLE EAR.

The attempts of Sir Astley Cooper, in 1800, by puncturing the membrane, and pushing air through the external meatus and Eustachian tube; and, later, of Horner, of Philadelphia, of Hinton and Allen, of London, induced the author to resort to one or the other means of introduction of entrance into the tube—that is, by the nares or external ear. He has used liquids in this way for nine years, and is convinced of its advantage in dry, chronic, non-suppurative inflammation of the middle ear. Dr. J. reverses Horner's method of procedure, and introduces liquids through the Eustachian catheter into the tube. He claims that the tube is thus more easily dilated, and will finally better admit air. He has abandoned bougies as dilators. He argues from the benefit derived by proper applications to the post-nasal cavity and pharyngeal vault a similar benefit from the local contact of fluids of proper temperature to the Eustachian tube or cavity of the middle ear. He thinks, too, that the bad influence of sea-bathing upon the middle ear has been overestimated. In a service of two years as naval surgeon in the war of 1861-65, extending from Maine to Georgia, he noticed less acute inflammation of the middle ear when the temperature allowed sea-bathing on the part of the sailors, than when the thermometer was so low as to prevent it. Dr. J. advised slightly saline tubal injections on account of their better tolerance than pure water, or weak

solutions of borax, chlorate of potash, etc. Their temperature should be at blood-heat, no force should be used, and the quantity should be regulated by the amount of effect desired. The comfort of the patient, and the subsequent improvement in hearing operate in the author's hands as warrants for the continuance of the practice.

Dr. Ritchey, of Washington, D. C., finds great advantage in the use of warm injections into the tube. He first uses warm air, and later warm solutions. In a practice of five years he has not found a single acute inflammatory result. In the cases hitherto noted a chill has preceded the inflammatory symptoms, showing changes in the general circulation.

Dr. Knapp's experience is entirely opposite to that of Dr. Jones.

Dr. J. J. Chisholm, of Baltimore, agrees with the author, provided the injections are weak and warm, and uses muriate of ammonia, bicarbonate of soda, or any of the milder alkalies.

Dr. Noyes, of Detroit, corroborated the benefits of judicious tubal injections; he details a case in which a bulging membrani tympani is punctured, with an exit of pus; the Eustachian way is then washed out with warm water successfully. A later case was unsuccessful, and Dr. N. has since abandoned the use of intra-tubal injections.

Dr. Reynolds, of Louisville, Ky., would limit such local medication to cases of drum-membrane sloughing.

Dr. Pomeroy, of New York, is much opposed to the injection of all fluids on account of inflammatory results in the middle ear. In chronic cases of proliferating catarrh, he treats the tube alone and not the tympanic cavity. There is danger of making too strong applications to the ostium tubæ Eustachii; even these must be sparingly and moderately used. Retention of foreign fluids in the tympanic cavity is a danger always to be thought of—as well as the reaction upon the tubal walls themselves.

Dr. Chisholm, of Baltimore, in an experience of over 1,000 injections into the tube, has not found more than five or six cases of resulting inflammation. He injects the post-nares in the ordinary way, and drives the residual fluid into the tube by air-inflation.

Dr. Ritchey thinks that Dr. Jones's method of injecting through the catheter is preferable, because it is more under control, and the quantity of entering fluid can be accurately estimated. He has never seen any bad results, having confined his medication to mild alkaline solutions.

Dr. Holcombe, of New York, has long since abandoned such injections. The use, as of old, of injections of nitrate of silver, and the salts of iron, should be abandoned. Dr. H. still uses iodized vapors, with impunity. In 1852, he first saw Triquet inject air into the Eustachian tube.

In recapitulating the points adduced, Dr. Jones, the author, thinks it not only possible to enter the middle ear by the tubal way, but also practicable. He would not use such strong agents as solutions of the metallic astringents. Here enters the question of possible advantage of an induced attack of non-suppurative catarrh. While it is not a risk to be taken *ad voluntatem*, it has, nevertheless, certain advantages.

Dr. E. Gruening, of New York, volunteered a paper on Wickersheimer's preservative fluid for animal substances.

The Prussian Government, a few months ago, bought and published the following formula: To 3,000 parts of boiling water put 100 parts of alum, 25 parts of common salt, 12 parts of saltpetre, 60 parts of carb. of potash, 10 parts of arsenious acid. Cool and filter, and add to ten parts of this solution, 4 parts of glycerine, and 1 part of methylic alcohol.

In the *Centralblatt f. die med. Wissenschaften* for January, 1880, Dr. Boersicke states that the formula published by the Prussian Government contains two errors. B. obtained a different formula directly from Wickersheimer, in which, instead of 10 parts of arsenious acid and 1 part of methylic alcohol, there should be 20 parts of the acid and 4 parts of methylic alcohol. Dr. G. presented specimens of both mixtures as prepared by different chemists. The government formula is slightly opalescent, while that of Boersicke is perfectly clear. The first preserves the refractive media of the eye, while the second does not.

A small, soft eye, which had lain three months in the Government fluid, shows the same depth of anterior chamber, a clear cornea, and an unchanged blue iris. The glioma retinæ, for which the eye was removed, can still be diagnosed by the naked eye. An albinotic rabbit's eye having lain in the same formula the same length of time, shows the media clear, and gives the pink reflex. With the Boersicke mixture, preservation is less perfect; the lens becomes opaque in a few hours, and the cornea dim after a few days, as if it had been placed in absolute alcohol.

On motion of Dr. Burnett, of Washington, an unanimous vote of thanks was tendered Dr. Gruening for this valuable acquisition.

At 4.30 P.M. the Section adjourned to meet on Thursday at 2 o'clock.

GENERAL SESSION.

Thursday, June 3—Third Day.

The Association was called to order at 10 A. M. by the President.

The first business in order was

THE REPORT OF THE COMMITTEE ON NOMINATIONS.

Dr. W. O. Baldwin, of Alabama, Chairman, read the following report:

For President—John T. Hodgen, M.D., of St. Louis, Mo.

For Vice-Presidents—1st, W. H. Anderson, M.D., of Mobile, Ala. 2d, Levi G. Hill, of New Hampshire. 3d, Henry T. Holton, of Vermont. 4th, H. Carpenter, of Oregon.

For Permanent Secretary—W. B. Atkinson, M.D., of Philadelphia, Pa.

For Treasurer—R. Dunglison, M.D., of Philadelphia, Pa.

For Librarian—William Lee, M.D., Washington, D. C.

For Chairman of the Section on Practice of Medicine, Materia Medica, and Physiology—Dr. Charles Denison, of Colorado.

For Secretary—Dr. T. A. Ashby, of Maryland.

For Chairman of the Section on Surgery and Anatomy—Dr. H. McGuire, of Richmond, Va.

For Secretary—Dr. D. A. Eve, of Tennessee.

For Chairman of the Section on Obstetrics and Diseases of Women—Dr. James R. Chadwick, of Boston, Mass.

For Secretary—Dr. J. Taber Johnson, of Washington, D. C.

For Chairman of the Section on Medical Jurisprudence and State Medicine—Dr J. T. Reeve, of Wisconsin.

For Secretary—Dr R. O. Young, of Arkansas.

For Chairman of the Section on Ophthalmology, Otology, and Laryngology—Dr D. S. Reynolds, of Ky.

For Secretary—Dr. S. M. Burnett, of Washington, D. C.

For Members of the Judicial Council, to fill vacancies—Drs. J. K. Bartlett, of Wisconsin; F. Staples, of Minnesota; D. R. Wallace, of Texas; J. S. Billings, of U. S. Army; J. H. Warren, of Massachusetts, and A. F. Woodward, of Vermont.

The Committee recommended that the next meeting of the Association be held in the City of Richmond, Va., on the *first Tuesday* in May, 1881.

As Chairman of Committee of Arrangements—Dr F. D. Cunningham, of Richmond, Va.

The Committee further recommended that the Committee on Necrology and the membership of the Section on Medical Jurisprudence, State Medicine, and Public Hygiene remain as now constituted. The report was adopted unanimously.

Dr. Denison offered his resignation, which was accepted, and referred to the Committee on Nominations.

Dr. Bigelow, of Massachusetts, offered the following preamble and resolution, which was adopted:

Whereas, The published proceedings of various sections of the Association does not receive the practical expression desired, and does not represent the labors of its members; and whereas, the members of the Association have long felt that the present mode of introducing the Transactions to the profession has been unsatisfactory to all concerned in the advancement of medical science; therefore

Be it Resolved, That a committee of five be appointed by the chair to report at the next session regarding the practicability of formulating all the proceedings in journalistic form, as recommended by the President in his Annual Address. Carried.

MEMBERS BY INVITATION.

The following were elected as members by invitation: Dr. D. H. Shields, of Hannibal, Mo., endorsed by Drs. C. H. Hughes, John T. Hodgen, A. J. Steel, P. G. Robinson, T. E. Holland, Geo. Homan, B. W. Hughes; Dr. W. J. Lumsden, Elizabeth City, N. C.; Dr. W. B. Chase, of Brooklyn, N. Y.; Dr. Wm. Stevens, of Cairo, N. Y., and Dr. A. Nellis, Jr., Montgomery Co., N. Y.

The Report on Sanitaria, presented by Dr. H. I. Bowditch, of Massachusetts, was read by title, and referred to the Section on Public Hygiene.

The members of the Association were invited by Dr. J. Jeffries, of Boston, to test their eyes for color blindness.

Dr. J. S. Billings, of Washington, D. C., reported on

THE CATALOGUE OF THE NATIONAL LIBRARY,

that Congress had made provisions for the publication of the volumes, of which the first would probably be published in July, 1880, and the second in July, 1881.

The following amendments to the Constitution, proposed by Dr. John H. Rauch, were adopted:

Article II., second paragraph, after "Army and Navy," insert "and the Marine Hospital Service of the United States."

Article II., fourth paragraph, at the end insert "the Marine Hospital Service of the United States shall be entitled to one delegate."

SECTION ON DISEASES OF CHILDREN.

Dr. S. C. Busey, of Washington, offered an amendment to the By-Laws, making provision for a new Section to be designated as Section VI., Diseases of Children. Adopted, and referred to the Committee on Nominations.

The consideration of the report of the

METRIC EXECUTIVE COMMITTEE

being next in order, it was read by Dr Atkinson, who moved its adoption. Discussion followed which was participated in by Drs. Brodie and Fairbanks, of Michigan, and Bronson, of Massachusetts, who opposed it, and Cole of California, Hunt of New Jersey, Antisell, of D. C., and Lyons, of Connecticut, in favor of the report, which was adopted by the Association.

The following were the propositions recommended by the Committee, and adopted by the Association:

First. That it recommends the teaching and practice of the metric system in medical colleges, clinics, dispensaries, etc.

Second. That it charges its Executive Metric Committee with the duty to report annually on the above institutions which teach, and those which do not teach the metric system.

Third. That it authorizes said committee to enter into communication with the Metric Committee of the British Medical Association, in order to concert such plans as may render the use of the metric system simultaneous and uniform in both countries.

Dr. Theophilus Parvin, Chairman; Dr. Edouard Seguin, Secretary; Drs. Edward Wigglesworth, and F. R. Weist, Executive Metric Committee.

RESOLUTIONS.

Dr. Reynolds, of Louisville, offered a resolution requesting Congress to remove every obstacle to the full execution of the plans of John Gamgee, for the building of a refrigerating ship, etc., which on motion by Dr. Hunt, of New Jersey, was laid upon the table.

Dr. W. M. Beach, of Ohio, offered a resolution making provisions for the appointment, by the President, of a committee of *five*, whose duty it should be to endeavor to secure for the medical staff of the army and navy a social position co-equal with that for like grades in any department of the service. Adopted.

REPORT FROM THE JUDICIAL COUNCIL.

Whereas, A protest without signature, against the registration of the delegates from the Medical Staff of the U. S. Navy, and unaccompanied by charges, had been placed in the hands of the Judicial Council, therefore,

Be it *Resolved*, That the protest against the registration of delegates from the Medical Department of the U. S. Navy is not sustained, and therefore there was no cause for action thereon. Adopted.

Resolved, That the Hannibal Medical Society of Missouri is not entitled to representation in the American Medical Association, because it is not in affiliation with its own State Medical Society. The protest therefore was sustained.

Dr. James F. Hibberd, of Richmond, Ind., Chairman of the

SECTION ON MEDICAL JURISPRUDENCE, STATE MEDICINE, AND PUBLIC HYGIENE,

then delivered an address, of which the following is an abstract. After some general remarks, in the course of which the interesting fact was brought for-

ward that *in all previous time*, with reference to public hygiene, there had been published 459 documents of all kinds as against 1,525 published during the last year, Dr. Hibbard passed to the consideration of certain questions under the head of *medical jurisprudence*. Passing the literature of the subject, which was meagre, the Chairman spoke of the request made by Congress of the Academy of Sciences to report upon some better way of legally taking human life than by hanging. It seemed unaccountable, while life was destroyed so easily, so surely, and so promptly by the taking of prussic acid or by the aid of a powerful current of electricity, that the process of hanging should have continued so long without effective remonstrance. In connection with this topic, allusion was made to the step of progress made recently by Judge Heller, of Indianapolis, in fixing *Wednesday* instead of Friday as the day upon which the law should be executed by hanging, and thereby breaking into the almost universal custom that had sustained and nourished prejudice and superstition which had been specially unhealthy in its influence upon all classes of people.

The second part of the address was devoted to certain questions connected with *psychology*, which in its general sense had had a very active state imposed upon it by recent investigations concerning the functions of the brain. Of psychologists there were two classes; first, theological, and second, scientific. The former were earnest, active, positive, and the latter, to which physicians mostly belonged, had become thoroughly aroused to the necessity of investigations to determine whether certain parts of the brain give rise to certain attributes of mind, or whether the brain as a whole is the organ of the mind as a whole.

There was no broad dividing line between the theological and the scientific investigator, yet their courses were entirely distinct from each other. There was not necessarily, however, any conflict between them. For a long time the brain had been recognized as the organ of the mind; but to the investigations of Hitzig and Fritsch was the new impulse due which had led many observers subsequently to pursue study in the same direction.

In connection with this topic, reference was made to the increase in the number of the insane, and that led to the consideration of the questions, How far should the State assume the guardianship and maintenance of the insane? and What was the best method of proceeding?

These questions were fully discussed, with an expression of opinion that special training was not necessary to the proper treatment of the insane, any more than for the application of therapeutics in the treatment of any other brain disease or morbid condition of the system generally.

The speaker then directed attention to a social aspect of psychology, and spoke of it from the point of view of hereditary transmission of disease, and, as belonging thereto, the transmission of the tendency to intemperance and the commisson of certain crimes. Would it not be discovered presently that all such irregularities—crimes if you choose—are due to imperfect nervous systems, and may not the tendency to such be transmitted? If due to a disordered brain, may not that react and lead to degeneration and disease of other organs? Under the head of *State Medicine*, Dr. Hibbard referred to the lack of uniform and well-considered plans with municipal and local boards of health for operation, and then entered somewhat into detail with reference to the working of the National Board of Health and its ability to meet the demands of the hour without in any way interfering with local or State organizations. Some of the criticisms upon the work performed by the National Board were then considered, and special reference made to the fact that sanitary science was yet in its infancy; that it was only a few decades since offerings had been made to Hygeia. Its influence was felt not only in this country, but had already become international.

Dr. Gama Labo, of Brazil, was introduced to the Association.

COMMITTEES.

The President announced the following committees: To carry out Dr. Bronson's resolution offered in the early part of the session: Drs. W. W. Dawson, Ohio; J. R. Bronson, Mass.; W. H. Pancoast, Pa.; N. C. Husted, N. Y.; J. S. Green, N. J. On the President's Address, Drs. Chaillé, La.; S. D. Gross, Pa.; J. S. Weatherley, Ala.; J. R. Bronson, Mass., and W. R. Gillette, N. Y. To report in 1881.

Dr. J. M. Toner, of Washington, D. C., then read

THE REPORT OF THE COMMITTEE ON NECROLOGY,

which was referred to the Committee on Publication.

DELEGATES TO THE CANADA MEDICAL ASSOCIATION.

Drs. C. N. Brush, Buffalo, N. Y.; James R. Leaming, New York, N. Y.; D. H. Goodwillie, New York, N. Y.; Wm. Brodie, Detroit, Mich.; W. B. Ulrich, Pittsburg, Pa.

DELEGATES TO EUROPEAN MEDICAL SOCIETIES.

Drs. R. Beverly Cole, Cal.; Benj. Lee, Pa.; M. A. Pallen, N. Y., and L. D. Bulkley, N. Y.

LIBRARIAN'S REPORT.

The Secretary then read the report of the Librarian, in which it was stated that the library contained 1,302 distinct titles, constituting 3,258 volumes. The Librarian asked for $200 with which to carry on the work of the library.

The report was accepted, ordered entered upon the minutes, and an appropriation for the amount of money named granted.

The Association then adjourned to meet at 10 A.M. June 4th.

SECTION OF PRACTICE OF MEDICINE, MATERIA MEDICA, AND PHYSIOLOGY.

J. S. Lynch, M.D., of Baltimore, Chairman.
W. C. Glasgow, M.D., of St. Louis, Secretary.

The first paper was by Dr. A. D. Rockwell, of New York, on

ELECTRICAL TREATMENT OF EXOPHTHALMIC GOITRE.

In regard to the current to be used in exophthalmic goitre, every physiological consideration and all experience points to galvanism as prominently indicated, and yet he would bear testimony to the fact that the faradic current is not altogether useless. The applications, however, must not be local, but *general*, after the method of general faradization; and in a certain proportion of cases, where there is anæmia, with marked nervous irritability, benefit will certainly follow. In the use of the galvanic current upon which we are mainly to rely, Dr. R. had obtained good results by placing the cathode over the cilio-spinal centre, and the anode in the auriculo-

maxillary fossa, gradually drawing the anode after a few moments of stable treatment along the inner border of the sterno-cleido muscle to the lower extremity. The second step in this process consists in removing the anode to the position occupied by the cathode, not leaving for a minute or no longer a greatly increased strength of current. In one case, failing after considerable effort to accomplish more than a very moderate degree of amelioration, the speaker made use of currents that were rapidly increased and diminished every few seconds by means of a rheostat, and with very great benefit. Subsequently to this, he came across a case published originally by Dr. Ancona in the Giornale Veneto di Scienze Mediche, where an obstinate and severe example of Graves's disease had been cured by distinct interruptions of the current, the electrodes being placed on either side, just below the angle of the lower jaw. The cure was accomplished only after the administration of 100 applications. In addition to the four cases that he had previously published, Dr Rockwell gave in detail the history of five additional cases. Of a total of nine cases, four completely recovered, one approximately recovered, two were much benefited, while in two cases no form of treatment proved of essential service.

In another case the pulse only was improved. In a fifth case there was an intermittency in the pulse, which ceased on the application of the galvanic current. The paper being open for discussion.

Dr. Chas. K. Mills, of Philadelphia, spoke of the importance of knowing definitely how much galvanic applications really affected the sympathetic system. He believed that they were of benefit in certain cases, but he did not see how any electrical applications could be said directly to affect the sympathetic. He thought it probable that the sympathetic was affected reflexly, if at all. Dr. Rockwell spoke of applying the current to the solar plexus. He (Dr. Mills) hardly thought it possible to do this. Dr. Mills had used the galvanic current in exophthalmic goitre, and it had produced good results, but he thought these were probably caused by the general tonic effect of the electricity, and perhaps also by its reflex influence.

Dr. J. J. Caldwell, of Baltimore, said: We should be thankful to Dr. Rockwell for his clear ideas in the causes and treatment of exophthalmic goitre. We can truly say that he and Dr. Bartholow have now done much to clear up the mysteries in this rare occult neurosis. Dr. C. thinks this a disease of the vaso-motor centres, and gave an illustration to prove the same—especially through the demonstration of Kidder's faradic electrical apparatus, preferably, because of their full and reliable currents with steady tension.

Dr. Geo. M. Beard, of New York, said that it was known positively that we can affect the cervical sympathetic by the electrical current. But the effect is very small and it is a question how much the therapeutical results caused by electrical applications are due to this. Another point which he would refer to was that the results produced by electricity are not caused by electrolysis or by any chemical decomposition.

Dr. Mills said that it is very indefinite to speak of diseases or influences on the sympathetic system. It might possibly be just as well to place the electrodes in other parts of the body as on the neck, for the neck is a somewhat dangerous place to apply electricity.

Dr. Rockwell said, in reply to a question by Dr. Harrison, of Ontario, that he generally placed the anode in the fossa behind the ear and the cathode on the back of the neck. This position he at intervals reversed, putting the cathode where the anode was, and the anode on the opposite.

Dr. J. Solis Cohen then described a new method of treating chronic pulmonary complaints by

ARTIFICIAL INFLATION OF THE LUNGS.

He showed a small rubber instrument like the bulb of a Davidson syringe, with a short rubber tube attached. The end of the tube is placed in one nostril, and air is then forcibly injected. This enables the patient to get rid of accumulations of mucus and pus, relieves cough, and often secures sleep the same as an opiate.

A paper was read by Dr. L. Duncan Bulkley, of New York,

ON THE USE OF SULPHUR AND ITS COMPOUNDS IN DISEASES OF THE SKIN.

Dr Bulkley spoke of the great popularity which sulphur had had in the treatment of skin diseases, and of the indiscriminateness of its employment. His present aim was to show in exactly what diseases sulphur really relieved and how it should be administered. He proposed to discuss its effects when given internally and externally, and also the effects of its different compounds and of the mixtures containing it.

First, as to its internal use. Pure sulphur was seldom given alone for skin disease. In eczema about the anus and genitals, however, it is very useful, especially if there is any constipation or piles. It may be given with equal parts of cream of tartar, in teaspoonful doses. Sulphurous acid (SO_2) is rarely used internally.

Sulphide of calcium is very valuable in skin lesions attended with suppuration. In *acne* it is often useful, but chiefly in those cases which have a considerable pustular element. It is not of much use in acne rosacea. In *furunculosis*, relieving not only the symptoms, but preventing further crops of boils. Like testimony may be given regarding its effects in carbuncle and suppurating bubboes. True, non-parasitic *sycosis* is sometimes benefited by sulphide of calcium. The drug is liable to be poor, and should have its characteristic smell of sulphuretted hydrogen. Dr. Bulkley usually gave gr. $\frac{1}{4}$ q. i. d.

Sulphuret of potassa probably has the same effect as the sulphide of calcium.

It is undoubtedly the sulphur that does the good in these cases, for other combinations of sulphur, such as the hypophosphite and sulphuric acid, have been found similarly beneficial. A wonderfully valuable combination of sulphur is that known as "Startin's Mixture":

R. Magnes sulph.	ʒ i.
Ferri sulph.	ʒ i.
Acid sulphur. dil.	ʒ ij.
Tr. gentian	ʒ i.
Aquæ	ʒ iij.
M. Sig.—ʒ i. dose after meals	

This is very potent in reducing cutaneous congestion in such conditions as erythema multiforme, erythematous eczema, and urticaria.

In regard to the use of natural sulphur waters, some benefit is obtained from them, but it is impossible to speak definitely of them until more data are

collected. The speaker would be pleased to receive help from any in collecting such facts.

Externally, sulphur has gained its widest reputation in the treatment of scabies, for which it is almost a specific. It should be remembered that sulphur is an irritant to the skin.

Besides scabies, sulphur is beneficial in acne, either in the form of the pure sulphur or the hypochloride, the latter being used as an ointment, about ʒ i. to ℥ i. Sulphur will also destroy the parasite of favus, ringworm, and tinea versicolor, pure sulphurous acid being the best form for these.

Sulphur vapor baths are of value in very few diseases of the skin. They stimulate the skin and liver, and they destroy skin parasites. But not much more can be said for them.

The paper being open for discussion,

Dr. Chancellor, of Virginia, testified to the great efficacy of mineral spring waters in skin diseases. In strumous troubles, in syphilides and eczemas, he knew that the sulphur springs of Virginia and other States were very efficacious. In parasitic diseases they are also very valuable.

Dr. Ulrich, of Pennsylvania, commended Dr. Bulkley's paper because it defined the limits of the usefulness of sulphur.

Dr. Brodie, of Detroit, Mich., said that he had not seen the benefit from sulphur springs that many claimed. Even parasitic diseases could be cured more easily by simple local treatment. In lead-poisoning, however, he had seen very good results. He thought that, as a rule, cleanliness and local applications were just as good as sulphur baths.

Dr. J. V. Shoemaker, of Philadelphia, said that he differed from the speaker in regard to the little value of sulphurous acid internally and the great value of sulphide of calcium. He had used the acid very successfully in urticaria. The sulphide he had found to disagree with the digestion.

Dr. Turnbull, of Philadelphia, had found that the sulphide of calcium interfered with digestion so much that he often had to give it up. The bisulphite of soda, however, was an excellent substitute.

Dr. Chapman, of Brooklyn, spoke of the value of diet in skin diseases. In a case of eczema related he gave sulphurous acid and glycerine, 1 to 3, locally, and cured the case, diet alone having failed.

Dr. Stackpole, of New Hampshire, spoke highly of sulphurous acid in skin diseases, but commended diet as of the greatest importance.

Dr. Galligan, of Pennsylvania, spoke favorably of sulphide of calcium, and had not found it to interfere much with digestion. He thought that the sulphur springs were often of benefit in syphilides. In pruritus vulvæ, he had used the yolk of egg with benefit.

Dr. Bulkley said that he did not understand how the sulphide of calcium should interfere so with digestion. He had never seen this effect when the drug was given in ordinary doses. He thought that it helped acne in only about half the cases.

The Chairman, Dr. J. S. Lynch, did not think the sulphide of calcium often interfered with digestion.

The paper was referred as usual.

The next paper was by Dr. V. P. Gibney, of New York, on

THE STRONG GALVANIC CURRENT IN THE TREATMENT OF SCIATICA.

In thirty-two cases treated as above at the Hospital for the Ruptured and Crippled, twenty-four were entirely relieved, three moderately relieved, and five not relieved. The currents were given daily; sixteen of the cases had no relapses at date, several others had only slight relapses, and only four had a permanent return. Several cases were related. In one, twenty-seven cells were applied for ten minutes daily for several days, with rapid relief.

The duration of the disease in the cases reported varied from a few weeks to several months.

The current should be a stabile one; the labile current is not a constant one. The speaker described the best form of battery. The current should be just as strong as the patient can bear it. The application should be given for ten minutes, or even fifteen, if possible. It should be given twice a day at first, if possible, and kept up for fifteen or twenty days. If by that time no good results ensued, it had better be discontinued. Six to ten seances may secure success. The descending current is preferable.

The paper being open for discussion,

Dr. A. D. Rockwell, of New York, said that electricity in any form will not always cure sciatica. He cited cases cured by the faradic current.

Dr. L. D. Bulkley, of New York, referred to two cases relieved by the strong galvanic current.

Dr. Geo. M. Beard, of New York, spoke of the relative value of strong and weak currents; said that it is true that, in whatever way electricity may be given, it will sometimes cure neuralgia. Practically, Dr. B. did not find much difference in results whichever way he applied the current—although, on the whole, the positive pole is somewhat soothing, and the negative irritating. He thought that there was much value in the treatment suggested, but there was a caution needed, for he had seen cases injured by overdoses of electricity. He would never begin a treatment of sciatica with such powerful currents, but would use weaker ones at first.

Dr. Caldwell, of Baltimore, said: This paper is so well discussed that I will only consider some salient points unmastered. This is the largest nerve-trunk outside of the bony cavities; hence, many causes of neuralgia are due to mechanical interferences, enlargements, tumors, and other pressures. When no form of electricity will avail except to diagnose—and here the surgeon is the proper party to relieve this painful malady—it would be unscientific to continue electricity and palliatives indefinitely.

Dr. L. Turnbull, of Philadelphia, read a paper on

HYDROBROMIC ETHER.

The history of the discovery of the ether was given with great fulness. Two cases of its use in labor were related.

Dr. Turnbull's mode of using hydrobromic ether was to crowd it a little at first. This was quite necessary, and an omission to do it had sometimes caused failures to secure anæsthesia.

The method of manufacture of the ether was described, and the necessity of its being pure insisted on. The conclusions of Dr. Ott as to the effect of various anæsthetics on the circulation were given. [They have already appeared in the Record.]

Referring to Dr. Sims's case, where death followed the use of hydrobromic ether, he said that the operation itself was a very serious one, as serious as ovariotomy; further, that there was disease of the kidneys, and that the bowels were moved, after the operation, by ʒ iij. gr. xiv. of sal Rochelle. These and other things in the case led him to believe that

the hydrobromic ether was not the cause of the death.

Dr. Truscott believed that bromide of ethyl was a safe anæsthetic, specially adapted to operations not exceeding forty minutes.

He also stated that he had never claimed, even at the beginning, that it was a *substitute* for ether or chloroform, but that it was a most valuable supplement to those anæsthetics.

Another point made was that, the more powerful an anæsthetic, the more danger is to be attached to it. This may be laid down as a rule.

In the discussion Dr. Taylor, of Philadelphia, related a case in which the bromide of ethyl had acted remarkably well.

Dr. Denison, of Denver Col., introduced the following resolution:

Whereas, The maps were omitted from the last Transactions, giving in shades of color the absolute humidity of the air, in grains of vapor per cubic foot, for each season, for the whole United States, also one giving the preponderance of the sunshine similarly illustrated, which maps were voted by this Section to be obtained from the Signal Service Bureau at their actual cost value, to accompany Dr. Denison's report; therefore, be it

Resolved, That as these are now promised by the Signal Service Office, at the very reasonable cost of $6 per 1,000 for each bare map, and $5 per 1,000 for each additional color, making the cost $11 only for the maps completed, that the Secretary be instructed to obtain them for this year's Transactions.

A paper was read by Dr. J. J. Caldwell, of Baltimore, on

THE STUDY OF SPECIAL NERVE-CENTRES.

Referred to the Committee on Publication.

A paper was offered by Dr. E. Cutter, of Boston, on

THE SALISBURY METHOD OF TREATING CONSUMPTION,

and referred to the Committee on Publication. Dr. Cutter made a few remarks explanatory of the paper. Consumption was, he believed, a systemic disease due to a vegetation in the blood.

The Section then adjourned.

SECTION ON SURGERY AND ANATOMY.

W. T. Briggs, M.D., Nashville, Tenn., Chairman.
C. Powell Adams, M.D., Hastings, Minn., Secretary.

In the absence of Dr. Adams, of Minnesota, Dr. E. C. Wendt, of New York, acted as Secretary of the Section.

THE PATHOLOGY AND TREATMENT OF SYPHILIS.

Dr. F. N. Otis, of New York, read an exhaustive paper on syphilis, giving his views on the pathology of this disease, and extensively quoting the literature of the subject. Excessive local accumulation of leucocytes was said to account in a rational and satisfactory manner for all the various syphilitic manifestations of the second or active stage. Mechanical pressure of such cellular aggregations produced the great variety of symptoms observed in connection with syphilis.

The therapy must therefore have in view the elimination of such superfluous and deleterious cell-elements. Nature got rid of these products by tissue metamorphosis—a process known as fatty degeneration.

Small doses of mercury, long continued, materially assisted this process. Ricord's name was here cited in support of the writer's views. The value of iodide of potassium was also dwelt upon.

The virus of syphilis was said to be merely an influence, not a physical entity.

In closing this instructive paper, Dr. Otis expressed himself as in entire accord with the views of authorities such as Jonathan Hutchinson, H. Lee, and McLane, of London—practically supported by Lancereaux, Ricord, and Baumüller. He shared their opinions on the pathology and proper treatment of the disease. The late so-called tertiary and quaternary manifestations were considered simply as sequelæ, and not as necessary effects of syphilis. This view was in entire agreement with known pathological processes, and did away with the necessity of supposing a specific virus as the cause of the malady. In addition, he concluded, it was in the fullest harmony with recognized physiological and physical laws.

THE DEVELOPMENT OF THE OSSEOUS CALLUS.

Dr. H. C. Marcy, of Cambridge, Mass., read a paper on the development of the osseous callus in the different fractures of the bones of men and animals, which was illustrated by microphotographs. Various specimens were also demonstrated. The writer summed up the different factors which entered into the modes of repair in fractures, as follows:

The germinal matter which was effused in the vicinity of a fracture must be placed under certain definite conditions to secure therefrom an ossific development. In periosteal transplantation, Ollier had already shown that the periosteum must furnish an exudation *sui generis*, and that this occurred only under irritation. The process of consolidation was not uniform, but varied with various influencing factors. Strictly speaking, there was no primary union in bone, similar to that of other tissues; but, by careful and complete adaptation of fractured surfaces, we placed the various factors of repair in such a relation that they might most readily combine to aid in the repair and produce a more certain and satisfactory result.

Beautiful microphotographs were then shown and explained.

Dr. Nancrede, of Philadelphia, took exception to the term necrosis of the periosteum, as employed by Dr. Marcy, of Cambridge. He thought there was merely a return to the fœtal state of this membrane in cases of fracture. His own views on the pathological conditions involved in the production of callus, after fractures, were then explained.

Dr. Herrick, of Ohio, thought that softening of the fractured ends of the bone always occurred. This, in his opinion, would account for the shortening resulting after fracture, in spite of the employment of extension.

Dr. Marcy stated that he agreed with his predecessors, but that his paper had been so shortened from want of time that he had not been able to fully elucidate all the points bearing on this important topic.

Dr. Sayre rose to a question of privilege, stating that the patient he had operated on for hare-lip was four hours old, and not four days, as had been stated in the report of the daily edition of yesterday's Medical Record.

Dr. H. G. Piffard, of New York, then spoke on

LUPUS,

and illustrated his subject by excellent demonstrations with the magic lantern. After some remarks on the terminology of the disease, the writer stated his belief that the pathological significance of lupus was that of a scrofulous skin affection. Three varieties were given:

1. Superficial, non-ulcerative lupus, or erythematous lupus; 2. Ulcerative lupus with superficial ulcerations, never penetrating beneath the skin; 3. Lupus with deep ulcerations invading deeper tissues.

The histological changes characteristic of these three forms were then given.

The first variety showed small cellular infiltration, the second giant cells, the third also cellular accumulation.

The usual course taken by the malady was next set forth, and its ordinary termination described. The simultaneous occurrence of cancer and lupus was mentioned. After giving the diagnosis and prognosis of the disease, the writer went on to state his views on the therapy of lupus.

Thorough local treatment was emphasized. His method consisted of complete removal by the scoop, with subsequent application of the actual cautery. Excision might also be followed by the application of chloride of zinc. Still, relapses were apt to occur.

DR. HUTCHISON, of Brooklyn, then read a paper on

THE TREATMENT OF SYPHILIS AT THE COMMENCEMENT AND END OF THE NINETEENTH CENTURY, BY DR. CHAS. R. DRYSDALE, OF LONDON, ENG.

After a short historical résumé, the author explained his usual method of treating syphilitic patients. These had usually been young women under the age of twenty-five, the occupants of the Rescue Society's Hospital, at London. He had used no form of mercury with the girls but the green iodide. At first he had given one-third of a grain twice daily; but his experience soon showed him that even these small doses not unfrequently caused salivation in the course of a month or so of daily treatment. For this reason he had latterly given only one-sixth of a grain of that salt, in combination with two grains of extract of henbane, in a pill twice daily.

This dose seemed to be well tolerated and did not produce salivation, even when continued for months. Under this treatment the disease went on in a favorable manner. For the most part the secondary eruptions were benignant, accompanied occasionally by slight alopecia and mucous tubercles, which latter symptoms were amenable to local treatment by means of chlorine lotions and isolation.

The occasional occurrence of iritis, rupia, sore throat, and apparent rectal syphilis, were noted, and the paper closed with the following conclusions:

1. The initial lesion requires no mercury.

2. Syphilis, when iodine is used without mercury, is usually mild.

3. Syphilis, when treated with very small doses of iodide of mercury, is usually mild.

4. Iritis may supervene while patients are taking courses of mercury; but it is usually amenable to treatment by blisters and atropine.

5. Tertiary syphilis is rare after iodide of potassium and iodide of mercury,

6. It is best treated by large doses of iodide of potassium, adding mercury when that remedy fails.

7. Cerebro-spinal syphilis supervenes in some cases early in the disease, and we may then give both specifics, or iodide of potassium alone. The same holds good in syphilis of the testis, liver, or lung.

8. Mercury and iodine probably act by their power of destroying low vegetable organisms in the tissues —the yeast of syphilis (Hutchinson).

9. The dose of mercury ought to be very small.

THE ELASTIC BANDAGE.

DR. MARTIN, of Boston, was then invited to speak on the subject of his elastic bandage. He said that he had not intended to bring this matter up before the Section; but since it was the wish of the delegates, he would read that portion of his somewhat exhaustive paper concerning the application of the elastic bandage, which related to the treatment of articular affections. He first said that the bandage should be applied with intermissions, otherwise vesication would supervene. Several cases illustrating the utility of the bandage were next described. The different sizes of the writer's bandages were then mentioned and their particular uses fully explained.

It was also stated that pain rarely attended the application of the rubber bandage, and Dr. Martin added that even a raw surface should not deter the surgeon from re-employing it, as this and similar conditions, however angry in appearance, were not essentially dangerous.

Some drawbacks, incidental to this method were then adduced. These were chafing, profuse sweating, and occasional extreme pruritus. The intervention of cotton or lint reduced such annoyances to a minimum. Washing with tar soap was useful in eczema; vaseline might also be employed. But all these disturbances disappeared before the great benefits connected with and following application of his rubber bandages.

DR. BYRD, of Quincy, cited an illustrative case.

DR. MARTIN, being questioned as to the method of application over inequalities, here came forward and illustrated on his own person the exact manner in which he commonly applied his bandage, by enveloping one of his knee-joints. In addition, he spoke of his successes in the treatment of non-ulcerative varicosities, and large ordinary ulcers. He also stated that he was now in the habit of employing much thinner bandages than formerly.

DR. NANCREDE, of Philadelphia, warmly advocated antiseptic surgery, taking exception to Dr. Martin's views concerning it. He said that the unanimous opinion of competent persons, in a certain Philadelphia hospital at least, was altogether in favor of Listerism.

ON THE RADICAL CURE OF INFLAMMATION BY LIGATION OF THE VESSELS OF SUPPLY.

DR. H. F. CAMPBELL, of Augusta, Ga., said he would not inflict the reading of his paper on the Section, but would confine his remarks to a very brief statement of his ideas on the subject. He observed that increased vascularity was the essential factor of inflammation. Heat, redness, pain, and swelling were usually mentioned as such, but increased blood-supply was certainly the principal one of these. In this connection he also took occasion to endorse the views so ably expressed by Dr. Martin.

He then related his experience with cases involving inflammatory processes, which had been treated by ligation of the supplying vessels. Seven cases affecting the lower extremity, and eight involving the

area had been thus treated. The results had been invariably satisfactory, reactions even unusually and unexpectedly so. Occasionally, as in a few cases of ovariotomy, collateral circulation became so rapidly established that the obstruction would soon be removed.

Injection to prevent inflammation, however, was dangerous and reprehensible. He only recommended injection for already existing inflammatory processes, with a view to effectually stopping their progress.

The next paper on "A Method of Treating Spinal Disease," by Dr. E. H. Conver, of Harrisburg, Pa., was read by title only.

ON THE TREATMENT OF FRACTURES.

Dr. W. D. Hoover, of Liberty, Va., read a paper on fractures, which had previously appeared in the "Transactions of the Third Annual Session of the Medical Society of Virginia." He then exhibited his appliance for the treatment of fractures.

On motion of Dr. Adams, it was resolved to read the remaining papers by title only.

The following were thus disposed of:

"Treatment of Fractures of Long Bones Involving Joints," by James S. Green, of Elizabeth, N. J.; "On the Present Standing of the Doctrine of Inflammation," by Dr. C. Heitzmann, of New York.

The paper announced by Dr. Burt G. Wilder, of Ithaca, "On the Foramina of Monro in Man and the Domestic Cat," was withdrawn by the writer.

A committee on publication, consisting of Drs. J. H. Packard, of Philadelphia, J. C. Hutchison, of Brooklyn, and A. P. Langford, of St. Louis, was appointed.

The Section then adjourned *sine die*, at 6.30 P.M.

SECTION OF OBSTETRICS AND DISEASES OF WOMEN.

G. M. B. Marcus, M.D., St. Louis, Mo., Chairman.

Robert Battey, M.D., Rome, Ga., Secretary.

The first paper was by Dr. Addisell Hewson, of Philadelphia, on

THE TREATMENT OF FIBROIDS OF THE UTERUS BY DRY EARTH.

For more than twelve years, he said, he had been engaged in the investigation of the value of the use of earth in surgery, and notwithstanding the opposition and ridicule that he had met with, he was glad to announce that its claims were now established to such an extent that he felt amply rewarded for his efforts in this direction. After alluding to its application, and the method of the same, in general surgery, he proceeded to speak of the subject proper of the paper. The first case in which he had employed it was one of very large multilocular fibroid. A layer of paste made of clay a quarter of an inch in thickness was placed around the abdomen and back, covered with a thin sheet of cotton batting, and secured by a many-tailed bandage.

The earth was put on moist in order that the dressing might be more perfectly adjusted. The patient was immediately relieved of all pain, and a reduction in the size of the abdomen was noticeable from the first. At the end of no more than three weeks the abdomen was diminished one-half. Eventually a perfect cure was obtained. It was known that this was no phantom tumor, since at one time the abdomen had been opened (by another surgeon) under the impression that there was an ovarian cyst, when it was found that the tumor was attached to the uterus, and weighed thirty pounds. Fifty cases had been treated in the same way he has, and with almost equally satisfactory results, except in one instance where the patient died of an intercurrent affection. In measuring the size of the abdomen before and at intervals during the treatment, a strip of soft lead was employed. The writer then proceeded to detail several of his cases. However great the pain previous to the application of the earth, this was so completely relieved that anodynes were never necessary subsequently. The tenderness on pressure was also immediately relieved, and within twenty-four hours the reduction in size was often very remarkable.

In the case where the patient died an autopsy was secured, which was looked to with great interest, as no opportunity had yet been afforded for the examination of a tumor which had been under treatment. A large fibroma of the uterus undergoing cystic degeneration was found, the principal cyst, containing twenty pounds of fluid, and as the solid portion weighed twenty-seven pounds, the total weight of the tumor at the time of death must have been forty-seven pounds.

The effect of the earth Dr. Hewson considered to be a chemical one. In all cases where it was at all likely to be of service it was a curious fact that the relief of pain commenced before the first dressing was completed.

In conclusion, he exhibited the material he preferred to use, which was the fine yellow clay, such as is employed for making the best Philadelphia brick. Potter's clay did not seem to produce the same beneficial effects.

The next paper was by Dr. B. F. Dawson, of New York, and was entitled

CLINICAL REPORT ON A MODIFIED OPERATION FOR CYSTOCELE.

In aggravated cases of cystocele, the writer said, three things were necessary: (1) the restoration of the uterus to its normal position; (2) the restoration of the bladder; and (3) the repair of the perineum. Having spoken of the operations of others, he claimed for the one devised by himself the advantages of more certainty of cure and less liability to abscess. It was somewhat similar to the operation of Schroeder, but had been performed (1876) before the latter had been called to his attention.

The denudation was similar to that of Schroeder, but the procedure differed from his in the folding of the redundant anterior vaginal wall into the bladder. He described upon the blackboard his plan of operating, and then proceeded to give the history of five cases.

The first case was one of complete prolapsus (the uterus measuring, from the external os to the fundus, five and a half inches), with rupture of the perineum extending to the sphincter ani. The recto-vaginal and vesico-vaginal walls were completely invaginated, and a sound passed into the bladder showed that organ wholly involved in the prolapse, and occupying the anterior aspect of the tumor.

The first procedure undertaken was to diminish the calibre of the vagina by narrowing the anterior wall. The anterior vaginal wall was denuded of mucous membrane by means of Emmet's scissors to the extent of four inches in length by three inches in breadth, the denuded surface resembling an oval in outline.

Eight silver sutures were then passed successively, by means of a needle armed with silk, through the vesico-vaginal tissue immediately below the denuded surface, entering and emerging about one-quarter of an inch from the edges, and introduced first at the upper portion of the wound. After all the sutures were passed, with a stiff curved sound, the denuded surface was folded into the bladder, traction at the same time being firmly made upon all the silver wires by means of their ends held in the left hand. This procedure doubled and folded the sutures within the tissues in such a manner as to cause them to act as splints in retaining the resulting fold of the vagina in position, and the denuded surfaces in apposition, even when the sound was withdrawn and before the sutures were twisted. Each suture was then carefully twisted, and perfect apposition of the raw surfaces accomplished. The whole mass was then carefully returned into position. Nine days afterward the vaginal sutures were removed and complete union was found to have occurred. The perineum was then restored, and the case resulted in a perfect cure.

The other four cases were of similar character, and in all of them the same excellent results were obtained. In the last one mentioned, however, the operation for the restoration of the perineum was performed the same day as that for the cure of the procidentia and cystocele. The result was that a short time afterward the perineum gave way in consequence of violent exertion made by the patient, and the cystocele also returned to a slight extent. But subsequently both operations were repeated at an interval of nine days between the two, and the patient had no further trouble.

These five cases were selected as the worst of the eight upon which he had operated, and a sufficient time had now elapsed since they were all performed to demonstrate the efficiency of the method employed. The next paper was by Dr. Robert Battey, of Rome, Ga., on

STILLBIRTH—RESUSCITATION AFTER TWO HOURS AND FIVE MINUTES.

The case referred to occurred after a breech-presentation. The child when born was still, and deeply cyanosed, the cord pulseless, and the heart's action very feeble and irregular. Presently the heart seemed to cease to act altogether. Artificial respiration, in various forms, was attempted without any result, and the nurse was then ordered to keep the child wrapped in hot flannel, while he himself kept up inflation by the mouth.

It was more than an hour before the first respiration was made, and it was not until ten minutes afterward that the second breath was drawn. After that the respiration gradually became more and more frequent, and at the end of two hours and five minutes both the respiration and the circulation seemed nearly normal, while the infant was able to nurse heartily. The child did well for about ten hours, when it had a difficulty of breathing, with mucous râles, and died suddenly.

This case, Dr. Battey thought, taught a useful lesson of patience and perseverance in such cases of asphyxia of the new-born.

Some authors, indeed, advocated the continuous efforts which he had employed in this case; but most physicians, he believed, were inclined to give up too readily. At all events, he had never read of a case where the child remained asphyxiated for such a long period as in this instance. An infant, he claimed, should not be regarded as dead because its heart had apparently ceased to beat, although this was too often done. The writer concluded the paper by a reference to the views of many of the best known authorities on obstetrics and the diseases of children, and urged the desirability of reviving the child, even if it were but for a short time.

Dr. Pallen, of New York, on behalf of Dr. T. Gaillard Thomas, presented a very remarkable dermoid cyst of the ovary which he had removed the week before, and in which there was a large patch of very perfect skin and a considerable number of teeth implanted in a kind of superior maxilla.

On motion, a vote of thanks was tendered to Prof. Thomas for his kindness in presenting this fine specimen.

The next paper, entitled

REST AFTER DELIVERY—TREATMENT OF PERITONITIS,

was read by Dr. R. Tauszky, of New York. He deprecated the practice of Dr. Goodell and other authorities in allowing the puerperal woman to get out of bed within a very short time after parturition. In his public and private gynecological practice, he said, he had frequently seen the bad effects of too early rising after delivery in abnormal conditions of the uterus, vagina, and ovaries, and he dwelt for some time upon the evils thus liable to result, not the least of which was septicæmia.

He then related a case recently terminating fatally in the Mount Sinai Hospital.

At the autopsy the most marked evidences of pelvic cellulitis and peritonitis was found. The colon and rectum were immensely distended with fæcal matter, and the case showed the importance of attending to the bowels after delivery.

In the treatment of pelvic or general peritonitis, he advised the methods practised in Vienna at the present time.

In the first place, the cause, if known, should be removed. Warm fomentations should then be employed, but if there was very high fever, cold applications should be used instead.

If the bowels did not move naturally, no interference should be made so long as there was no tympanitis.

When this occurred, however, warm enemata and oil were to be used. If there was very active inflammation, the local abstraction of blood by means of leeches should be resorted to, and he sometimes placed a dozen leeches on the abdomen. Opium, of course, was to be freely used. In chronic cases fomentations and counter-irritation by tincture of iodine or by blisters were recommended. In some instances blue ointment suppositories were also of great service. In acute peritonitis, when the patient was strong, digitalis acted most happily, and it was very efficient in bringing down the pulse.

Dr. R. Beverly Cole, of San Francisco, then made some

REMARKS ON SPONGE-TENTS AND THEIR MODE OF PREPARATION.

In gynecological practice it was conceded by all that it was sometimes necessary to dilate the os and cervix uteri. The sponge-tent he considered better than all others used for this purpose, for the reason that none of the others could be made to remain *in situ*. As to the sponge-tent, its forms and mode of preparation were exceedingly various.

The objections to those commonly kept in the shops were: *First*, that they were not of the proper

size or shape, generally being altogether too large. Second, that these were apt to be made of a very coarse quality of sponge, and hence the dilatation could not be carried to the extent desired. Third, the sponge-tents, as usually prepared, gave a great deal of unnecessary pain on account of their coarseness and roughness.

Instead of employing these, therefore, he made his own tents out of fine cup sponge, such as surgeons use. The sponge was dipped in melted wax, and then subjected to very great pressure (which could best be secured by a letter press), which forced all the superfluous wax out of the sponge, and flattened it out to a thin cake. It was very necessary in selecting the sponge employed that it should be entirely free from all coral or other mineral impurities. After being pressed out in this way, the sponge could then be cut with the knife or scissors into any shape desired, care being taken to cut it in the direction of its long axis.

In many instances it was necessary to begin with a tent not larger than a knitting needle. Before using, it should be provided with a thread by which it could be removed.

Dr. Pallen thought that Dr. Cole's method of making sponge tents was most ingenious; but he could not permit this opportunity to pass without expressing his strong disapproval of the use of sponge-tents in general. He knew of nothing in all gynecological practice that had caused so much evil as the sponge-tent. He was opposed to its use on account of the great dangers attending it, and because there were so few cases (except for purposes of dilatation, when other agents might be employed) in which it was applicable.

Dr. Pallen spoke for some time with great force and eloquence in setting forth the very serious dangers which he believed to be inseparable from the use of sponge-tents even when every precaution was resorted to to render them innocuous.

Dr. Bayley then exhibited

A UNIVERSAL CATHETER,

which consisted of an ordinary soft-rubber catheter, to which was attached some rubber tubing sufficiently long to reach to the chamber-utensil on the floor, and made some remarks on its use.

The hour for adjournment now having arrived, the minutes of the proceedings were read and approved, and the Section adjourned.

SECTION ON DISEASES OF CHILDREN.

Dr. S. C. Busey, of Washington, D. C., Chairman.
Dr. Frank Woodbury, of Philadelphia, Secretary.

CONGENITAL ATROPHY OF LIVER.

Dr. A. Jacobi read the history of a case of Congenital Atrophy of the Liver. In this case the liver was reduced to one-tenth or one-twelfth of its normal size. The microscopic examination showed scarcely anything but interstitial tissue, and he believed it to have been a true case of interstitial hepatitis occurring in the infant. The capsule of Glisson was greatly thickened, giving the appearance of chronic peri-hepatitis. A history of the child did not give any positive evidence of syphilis, but the lecturer believed the case to have undoubtedly been one of this character. Peri-hepatitis had been regarded as an adult disease until recently, when several cases have been reported by the German pathologists as occurring in children. As a rule, syphilitic disease gives rise to enlargement of the liver, which, according to Marchinson, may be of two kinds: first, gummatous deposits; and, secondly, diffuse syphilitic cirrhotic degeneration, which leads generally to atrophy.

In speaking of the case, Dr Jacobi also reported a case of syphilitic liver which had recovered—the only infant that he had known to survive the disease. The child is now a year old, and appears to be healthy.

In the treatment, where the evidence of syphilis appears early a prompt mercurial impression is required, and he had followed Lewin's plan of giving the bichloride hypodermically, with excellent results. The salt was dissolved in water and filtered before using. In other cases, where such a rapid effect is not needed, he had followed the usual plan of mercurial inunction.

Dr. J. B. Bryson, of New York, by invitation of the Chairman, opened the discussion. He regarded the case as interesting, and, as presented by Dr. Jacobi, seemed to have no other explanation than had been given. In the specimen, however, he saw no evidence of syphilitic lesion. He had had no experience in the treatment by hypodermic injections, but preferred to medicate the child through the mother's milk. His hospital colleagues had tried the hypodermic injections but had failed; but by any method of treatment, except in those where the aid of maternal medication was invoked, no good results had been observed. In his experience, where syphilitic skin affections, such as furuncles, etc., are very early and very marked in their manifestations, he had learned to hope for but little in the way of treatment. When syphilis appeared from the fifth to eighth week, a fair chance of recovery was present, and he had regarded these subjects as presenting the most marked results from the medical care, and very satisfactory to treat. But in such cases he would always avail himself of the mother's milk as a method of administering the specific remedies wherever it was practicable.

Dr. H. A. Hoxsie, of New Jersey, said that he had not used mercury hypodermically, but had employed inunctions and nursing from a mother who was under antisyphilitic treatment. If the exfoliation of skin and nails occur before five days, the infants almost invariably die, but if after five days, good results might be hoped for.

Dr. E. A. Cuthy, of New Jersey, inquired if the hypodermic injections of mercury had caused anæmia in these cases? It was found to have this effect when he was at the Edinburgh school. He could see no other explanation of the case reported by Dr. Jacobi than the one given by the lecturer.

Dr. Jacobi, in answer to a question, said that he used a mild solution of the bichloride (two to four grains to the ounce) for injections. Where inunctions are resorted to, in cases where the emergency is not so pressing, the oleate may be used for this purpose, containing six per cent. of mercury, but the ordinary blue ointment is also very efficient.

Dr. Cuthy reported a case of a synovitis in a so-called scrofulous child, to which he gave twelve one-grain powders of gray powder—one to be taken each night. After taking these powders, the child had improved so much that the prescription was refilled without the authority of the physician.

He was called again at the end of the second series of powders, the child was anæmic, emaciated.

and cachectic, but afterwards improved, and the knee got entirely well.

Dr. Jacobi said that the effect of mercury on specific disorders was so great, that in such cases we are obliged to use it. In small doses, long continued, its action is plastic rather than antiplastic, as it is in larger doses. Dr. Keyes has pointed out that in syphilis, the small doses increase the globular richness of the blood. Mercury has formerly been given indiscriminately for almost every complaint, and doubtless did a great deal of harm; but, properly administered, is a very valuable agent in the treatment of just such cases as the one described in his paper.

Dr. Hopper said that the reason why a change had occurred in medical practice, was, that the advance in our knowledge of pathology and the effects of medicines, has led physicians at the present time to be sure that the indications for its use were present, before ordering it, just as Dr. Jacobi had pointed out.

Dr. Jacobi reported

A CASE OF SUPRAPUBIC LITHOTOMY

in a child, six years of age, which had suffered with the symptoms of stone in the bladder for a year.

The operation was performed without difficulty, under chloroform, and a medium-sized phosphatic stone removed. This was followed by persistent suppuration, which was more than would be expected simply from a mucous membrane. The case had not yet entirely recovered.

In discussing the case, Dr. Jacobi referred to recent observations upon sub-mucous gastric abscess, and inquired whether a similar condition could not exist in the bladder. These accidents of peritonitis and extensive suppuration, as a consequence of epicystotomy, may prove to be a serious bar to a method of operation for lithotomy that otherwise has much to commend it. It may be that the preliminary distention of the bladder required may have injurious results in a bladder which is contracted, and the subject of concentric hypertrophy and chronic irritation from the presence of the stone. If the bladder be much diseased, the forced injection may of itself produce serious consequences, In the case reported, no injury or irritation of the bladder was caused in operating, beyond the simple incision.

Dr. Jacobi also presented a specimen taken from a child, who was admitted into the hospital at the same time as the preceding case, and also exhibited the rational signs of stone in the bladder. In this case operation was delayed on account of some fever present in another case. This boy subsequently died of meningitis without any operation having been attempted. The bladder, very much contracted and hypertrophied and with its mucous membrane thickened, inflamed, and ulcerated, was found closely embracing a stone as large as a small pigeon's egg. This specimen of diseased bladder, taken in conjunction with the preceding case, was very interesting, and showed very clearly the risks of the operation. The kidneys were quite healthy. The urine was alkaline, phosphatic, and contained ropy mucus and pus.

In commenting upon the case operated upon, Dr. Jacobi referred to the large doses of opium which had been given during the attack of peritonitis, which, commencing with five drops of tincture of opium, had been gradually increased until twenty drops had been administered every hour, which would generally be considered a very large dose for a boy six years of age. It is astonishing how much of the opiate is required in cases of peritonitis, and, at the same time, how little effect it produces. He cited an instance in which a woman suffering from peritonitis, in the same hospital, had had administered to her fifteen hundred grains of morphine in the course of twenty-five days, or, on an average, a drachm a day. Upon one occasion it was found necessary, in order to relieve her pain, to give her ninety grains of the sulphate of morphia hypodermically inside of twenty-four hours. Strange to say, these cases rarely contract the opium-habit. This woman recovered.

In answer to a question from Dr. E. W. Schauffler, of St. Louis, as to whether he believed that the bladder presented could have been distended so as to rise above the pubes, as required in the operation of suprapubic lithotomy, Dr. Jacobi replied that he had no doubt that it could have been so distended as to permit the operation. In reply to a question from Dr. F. Woodbury, he said that the tincture of opium used was of proper strength, as it was what was commonly used in the hospital, and he knew that it affected other cases in the ordinary doses.

The Chairman, Dr. S. C. Busey announced that, in accordance with instructions, he had submitted to the General Session, this morning, the resolutions passed by the temporary Section at its meeting yesterday; and that the necessary by-law creating a permanent

SECTION ON DISEASES OF CHILDREN

of the American Medical Association had been adopted, and that, at the next meeting of the Association at Richmond, the Section will be duly provided with officers and papers.

Dr. Jacobi said that he had taken much interest in the formation of a section upon the special subject which he had presented in his opening address yesterday. He apologized for taking up so much of the time of the Section with his remarks, but he said that no papers had been referred by the Committee, and it had occurred to him that he had better present such papers as he could prepare in the short time, rather than to call them together to organize, with nothing to present for their consideration.

After a vote of thanks to Dr. Jacobi the section adjourned.

SECTION ON MEDICAL JURISPRUDENCE, CHEMISTRY, PSYCHOLOGY, STATE MEDICINE, AND PUBLIC HYGIENE.

James F. Hibberd, M.D., Richmond, Ind., Chairman.

Thos. F. Wood, M.D., Wilmington, N. C., Secretary.

The Section was called to order by the Chairman at 2.15 P.M.

Dr. Billings, U. S. A., moved that Dr. Wines, of the Census Bureau, be permitted to explain the blanks upon which the present census is being taken. Carried.

Dr. Wines then proceeded to describe the different forms of census blanks, after which

Dr. Billings offered the following resolutions, which were adopted:

Resolved, That this Association approves of the plans proposed by the Superintendent of the Tenth Census for the collection of data, with regard to the insane and idiots of the United States, and that it urges upon physicians that they should aid in this

work, so far as possible by correspondence, to the schedule of questions on this subject which will be sent them from the Census Office.

Dr. Chas. W. Page, of Hartford, Conn., then read a paper on the moral treatment of the insane.

He asked a share of the interests of having able and honest officials in charge of institutions for the insane as the first step in the right direction. He alluded to the advantages to be derived from having the insane sleep in dormitories which communicated with each other, as well as to the more frequent association with each other. Great stress was laid on the benefit to be derived from educating the patients, so that their minds might be diverted from their malady, and as a possible means of improving their condition. Manual labor and exercises of various kinds were mentioned as other ways of influencing the minds of the insane. The author said that the hopelessly insane should be separated from those who could possibly be cured. The experienced hands and those having charge of asylums should be physicians.

The next business coming before the Section was the report of the committee appointed at Buffalo, two years ago, to take into consideration the subject of "The Intervention of the Physician in Education." The report was read for Dr. R. J. O'Sullivan, of this city, by Dr. A. N. Bell, of Garden City, N. Y., was based on a similar one made some time ago by Dr. E. Seguin, of this city, and alluded to the necessity of better sanitary regulations in schools, such as ventilation, sewerage, etc.

Drs. Wm. F. Thoms, of this city, and J. P. Quimby, of Jersey City, in the discussion which followed, spoke of the necessity of impressing the laity with the fact that something should be done in reference to having better school accommodations.

The next report was read by Dr. A. N. Bell, in the absence of the Chairman, Dr. H. P. Bowditch, of Boston. It was on the subject of the "Establishment of Sanitaria, etc." The committee arrived at the conclusion that it was inexpedient to recommend any particular sanitarium.

Dr. Bell offered the following resolution, which was adopted:

Resolved, That a general sanitary organization is a necessity of every enlightened commercial nation, and the service of the National Board of Health of the United States, since its organization, has been such as to impress us that both in its personal and organization it is entitled to the confidence of the government and the people, and we join the American Public Health Association and the National Academy of Sciences in earnestly recommending to Congress that the suggestions and estimates of the Board receive their legal sanction, believing that the money asked for is necessary to the work of the Board, and will be a most judicious expenditure of money.

Dr. A. L. Carroll, of New Brighton, N. Y., offered the following resolution, which was carried:

Whereas, The value of vital statistics depends upon their scientific accuracy, as regards the etiology as well as the diagnosis of disease, this Section would urge upon the Association the importance of recommending that every medical school within its jurisdiction establish a Chair of Public or State Medicine as an essential part of its curriculum.

Dr. J. V. Quimby, of Jersey City, then read a paper on the

CRIMINAL USE OF CHLOROFORM.

The author gave the main points in the Smith murder case, he having been consulted as to the possibility of chloroforming a patient while asleep without awakening him. It was determined, by experiment in three cases, that a person could be chloroformed without disturbing him, and that he would sleep for some time after the administration.

Dr. W. H. Lamson, of Lewisbury, Mass., followed with a paper on

THE SOCIAL CONDITION OF THE INSANE,

in which a description of the author's idea of how to build asylums were given.

Dr. Antrim, of Washington, D. C., then read a paper on

HYPNOTISM OR MESMERISM,

in which he advocated the appointment of a medical analyst, to act in conjunction with the coroner. The precautions to be taken in cases of suspected poisoning were also mentioned.

Dr. W. F. Thoms, of the city, read the last paper, entitled

HUMANE SOCIETIES.

Dr. A. N. Bell then offered some resolutions, among which was a proposition to change the name of the Section to that of "State Medicine." All of which were carried.

On motion, the Section adjourned *sine die*, at 4.35 P.M.

SECTION OF OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

Dr. Swan M. Burnett, Washington, D. C., Chairman.

Dr. Eugene Smith, Detroit, Secretary.

The Section was called to order at 2 P.M., by Dr. S. W. Burnett, of Washington, D. C.

Dr. B. Joy Jeffries, of Boston, spoke on

COLOR-BLINDNESS,

alluding to the experiments of Holmgren, Purkinje, and others.

The methods of Dr. J. are used in the marine service of the U. S., and by certain railroad companies. In examinations of 13,000 persons, about 4 per cent of males and only 0.1 females have been found color-blind, in this number. A chart of worsted squares was introduced, which might be of practical service to a naval surgeon. The last edition of Stilling's atlas of colors and nuances was introduced. Donders' frame of wound threads (sent by D. to Dr. Jeffries) was further introduced. Pflüger's method consists of detecting the complementary colors through tissue-paper. The question is asked by railway officials, *how* color-blind is an employee? Donders has proposed a means by which at a distance of 3 metres a quantitative examination of color upon a black ground can be measured. Already Connecticut has a law demanding such examinations by railway officials. There is also, through Donders' influence, such a national law in Belgium. Dr. J. has already tested 185 members of the American Medical Association, and found 5 color-blind. He is unable to answer why so few females are color-blind.

Dr. David Hunt, of Boston, read a paper on

VARIABILITY OF THE HUMAN EYE,

in which he stated that myopia has caused most interest on the part of specialists, but hyperopia and astigmatism abound in countries where myopia

prevails. The eye of civilized man has a tendency to vary from a nearly normal standard, such as characterizes most savage people and the domesticated animals. Myopia has been generally considered as the direct result of near vision; in the same way hyperopia has been treated of as the direct product of a relatively greater exercise of the eye in distant vision, while the cause of astigmatism has received but partial explanation. In attempting to apply the hypotheses founded upon the above considerations, it will be seen that they fail; for instance, they do not explain in any manner the relation of astigmatism to the vast amount of myopia and hyperopia in the same nations, as among the Germans and Italians.

In studying the embryology of the eye, its formation from a simple bud of brain-tissue, as exhibited in the plates introduced, suggests the possibility that in the phenomena of the variability of the human eye we have an instance, not of *direct* variation, as has been hitherto supposed, but rather an illustration of correlated variation; that the eye varies not directly as its function varies, but that, as a bud of brain-tissue, it partakes of the inherited stimulus to increased and varied growth, which we know affects just that portion of the brain from which the primary eye vesicle is produced. We see the direct result of this stimulus to increased cerebral development in the greater frontal development which civilization has produced; and, just as the growth of brain-tissue has shaped the skull, so we believe the increased growth of retina, while it is yet a simple bud of brain-tissue, influences the shape of the sclerotic, which is to be formed from the connective tissue immediately surrounding the embryonic retina. Given this variability, then causes—which we can not believe produce the variations, since they do not do so in animals—may modify and increase the variations so caused.

One other point of interest in the study of the development of the eye was briefly alluded to. Staphyloma posticum has been a fruitful theme of discussions of phenomena hitherto unexplained by any hypothesis. The great trigeminus ganglion, the only mass of nerve-matter excepting the brain in the head of young embryos, may furnish a clue to this peculiar weakness of the temporal half of the posterior portion of the sclerotic. In the plates it will be seen that at an early stage of development the ganglion is situated a short distance behind and back of the temporal half of the globe. Now, any increase of the ganglion, such as most surely accompanies the increased growth of the brain in civilized man, will cause the ganglion to encroach upon the layer of connective tissue, from which the posterior portion of the temporal half of the sclerotic is to be formed; more than this, as the ganglion in its development breaks up into the separate ganglia, and as these in turn undergo the relative decrease in bulk which they pass through before they are enclosed in the cartilage which is to form the skull, it will be seen that the curve, which this portion of the sclerotic forms, must be directly proportioned to the primary increase of the ganglion; and that, other things being equal, the sclerotic will be thinner and looser in texture, as the connective tissue lying between the eye and the ganglion is encroached upon by their increased growth.

The trigeminus ganglion is situated at the base of the first branchial arch, and, as it influences the eye, so I believe its increase influences the development of the arch, and thus accounts for the decrease of prognathism characteristic of civilized nations; it is difficult for us in America to believe that the marked change which occurs in the maxillary protuberance of the descendants of our Celtic and other emigrants, is caused by changes in diet and thus of function of the jaws, as Darwin and Spencer have supposed. We should expect, if change of function had any result beyond changing the development of the muscles concerned in mastication and the bony ridges, which mark their insertion, that the prognathism would increase; since it is surely the case that many emigrants have a diet requiring less mastication, and in America begin upon diet consisting more of animal food and requiring more; that an increased strain upon the nervous system is made in changing from a peasant to a citizen, I think no one will deny.

No discussion followed this most interesting paper.

A paper entitled

THE PROBABLE CAUSE OF SOME FORMS OF GLOBUS HYSTERICUS

was read by Dr. Richard C. Brandeis, of New York. The author proceeded to enumerate the different symptoms noticed in the various forms of globus, and dwelt upon the fact that this affection was as frequent in females of the lower as in those of the higer classes The commonest form is attended by a sensation of a ball or lump in the throat. The larynx is most commonly the seat of the distressing sensation, but sometimes the pharynx and œsophagus are also affected; when this is the case, the patient may be unable to swallow food or drink. In the more marked cases every ingestion is followed by a regurgitation, and this is attended with a spasm of the glottis and dyspnœa, owing to the irritation of the peripheric sensitive nerve-fibres of the pharynx, which is reflected to the pneumogastric nerve at its origin, the floor of the fourth ventricle, and is then communicated to the gastric and recurrent laryngeal branches of this nerve. Uterine and spinal affections are also frequent causes of this chain of symptoms.

In some cases, however, no neural cause can be discovered, and every form of constitutional treatment will fail. Dr. B. has observed many cases in which all the symptoms of globus hystericus may be attributed to a local cause, and that is irritation of the epiglottis. This is generally due to an enlargement of the papillæ circumvallatæ, situated at the base of the tongue, which may assome such a size that the movements of the epiglottis are interfered with, owing to the fact that it is firmly held by the enlarged glands. If the epiglottis is extricated from its confinement, these symptoms will disappear, but may return if the enlarged papillæ are not destroyed. This may be done by means of caustic applications, the knife, or the galvnnocautery, care being taken that the delicate epiglottis itself is not interfered with. In no case in which the papillæ were removed was there a return of the symptoms.

Dr. E. Gruening, of New York, exhibited a

MAGNET FOR THE REMOVAL OF PARTICLES OF STEEL AND IRON FROM THE INTERIOR OF THE EYE.

Allusions were made to the hook, scoop, etc., and their occasional failures.

McCuen first published a notice of removal of metallic bodies in 1874, with a magnet, but Hirschberg first actually employed a magnet for such purposes. Hirschberg's apparatus was a cylinder, the ends of

which were drawn out and connected with wires that formed its positive and negative poles. The amount of magnetic polarity was, however insufficient, and a permanent apparatus was demanded in addition. Dr. Gruening was experimenting at the same time as Hughes, but in another direction. His idea was to have a permanent battery. His instrument consists of an armature of six parallel cylinders connected, the end of the bundle of cylinders being furnished with a tapering needle, about 22 mm. long. In his first experiments upon dogs' eyes, Dr. G. broke all the needles. Two monkeys, or "executives," were presented, the larger being less highly organized than the smaller one. The latter carries the weight of two steel key and ring, about 28 grammes. A dog's eye, in which a piece of metal had been inserted, was shown, and from which the soft iron was duly extracted. The better instrument was made by Reichers, of New York.

PERICHONDRITIS AURICULÆ

was the subject of remarks, with a case, by Dr. H. KNAPP. It is very rarely seen. Began in cartilaginous portion of meatus, whence it spread over the entire auricle, with the exception of the lobule. No pus was found at any time. The case was relieved in about three months, since which time there has been marked atrophy of the auricle.

Remarks being in order,

Dr. POOLEY said that he had also seen a case of perichondritis in which he had applied continuous pressure, and thus had checked the progress of the disease.

Dr. MCKAY, of Wilmington, Del., had also had a case in which a cure was effected by means of applications of nitric acid. Dr. SHAKESPEARE, of Philadelphia, was observing a case in which there was a marked formation of pus.

The next paper was by Dr. T. R. POOLEY, of New York,

ON THE DETECTION OF THE PRESENCE AND LOCATION OF PIECES OF STEEL AND IRON IN THE EYE, BY THE INDICATION OF A MAGNETIC NEEDLE.[1]

The meagre literature of this department of ocular surgery was commented on by the author. Smee, of London, in 1841, was the first to publish any authentic results of the detection of metallic substances in the human body by means of magnetism. In Gaillard's *Medical Journal*, April, 1880, Prof. J. H. Pooley, of Columbus, Ohio, instituted kindred experiments on the human body with undoubted success. This was the first suggestion to the author that the same means might be utilized in their detection in the eye. Ten experiments were instituted with pieces of watch-springs, iron and steel wire, and cast steel, of different weights and shapes. A table was incorporated, detailing also the distance at which a magnetic needle of 41 mm. in length was deflected toward the different substances, some of which were non-magnetized, others rendered magnetic by induction, while others had been in contact with a magnet. The substances weighed from .004 to .136 grammes, and while non-magnetic caused deflection at distances varying from 3 to 12 mm. The results depended on the size of the body, as well as on its position in the eye.

The first desideratum was to render the metallic body a magnet. With cast steel the deflection was the greatest. This detectibility of magnetized bodies having been proved, Dr. P. began experimenting with freshly enucleated eyes of pigs and sheep. He used highly magnetized watch-needles, and double pointed needles with a cork at the centre. Experiment No. 3 was that of a steel wire entered behind the sclero-corneal margin and passed deep into the vitreous. The needle was deflected by it in every instance. In experiment No. 4 a horse-shoe magnet was presented through a cork with the spot from which the enucleation had been withdrawn, and the needle was deflected as before. In experiment No. 9 a piece of watch-spring was introduced just behind the sclero-corneal margin of an eye lying upon the table, the cornea looking upward. The needle indicated its location 6 mm. below its point of entrance, where, by an incision it was not found. The eye was then turned over, when the needle was deflected toward a new point. Upon cutting down, the body was found in the vitreous, partly covering the papilla and partly lying on the retina.

In experiments Nos. 12, 13, and 14 a living rabbit's eye was used, and several hours after the introduction of a bit of steel wire the vitreous was turbid, the iris dull, conjunctiva chemotic, and purulent chorioiditis had set in. The needle deflected as before. The last three experiments were more germane to the subject, as they were made upon living rabbits' eyes. In all of them it was impossible to see the metallic body, on account of the turbidity of the vitreous, and in none was there a failure of the needle to be deflected toward its habitat. Pagenstecher, of Wiesbaden, first called attention to the rapid formation of a dense exudation about a foreign body. Pooley saw this occur in the three experiments on rabbits, and found the magnet almost powerless in the removal of the body.

The author's conclusions were as follows:

I. *That a metallic iron body in the eye may be detected by a suspended magnet when the body lies near its surface.* II. *The presence and position of such a foreign body may most surely be found by making it a magnet by induction, and then testing for it by a minute suspended magnet.* III. *The intensity of deflection of the needle is proportionate to the depth of the body.* IV. *Changes of deflection of the needle indicate changes of position in the foreign body.*

Discussion being in order,

Dr. GRUENING asked how the magnet was suspended, and Dr. P. answered that the suspension was by a thin fibre of silk. Another query was as to the manner of attaching the magnet. The answer was that in all the laboratory experiments the magnet was held at right angles over the upturned eye by a rectangular support attached to a table. Dr. G. has lately instituted experiments, in which his magnetic needle was suspended by cocoon silk, the needle pointing downward in mid-air within a glass box. Dr. G. was able to overcome the terrestrial polarity, so that the north pole became the south pole of his magnet, but was unable to satisfy his thesis as to the detection of a metallic body.

Dr. KNAPP had had two opportunities of removing foreign bodies from the eye by the magnet, in one of which he was successful, in the other not. In the second eye, which suffered from suppurative iridochoroiditis with hypopion to the height of 3 mm., three attempts being made with the magnet introduced between the internal and inferior recti, and directed in every direction across the globe, failed to "get the click" and deliver the foreign body; the latter, however, was found in the wound later, and extracted by forceps.

Dr. POOLEY emphasized the scientific necessity of

rendering the foreign body a magnet by induction, whereby Gruening's experiments had failed.

Dr. S. D. Risley, of Philadelphia, volunteered a paper noting various

EAR-TROUBLES,

one of which was a case of mastoid inflammation, with meningeal complications. Trephining of the mastoid and good hygiene saved the patient's life. Two cases of inspissated cerumen, giving in one symptoms of meningeal compression, in the other those of locomotor ataxy, were read. Other cases were detailed, all of them examples of reflex irritation.

Dr. Risley further showed a photograph of a characteristic dermoid tumor of the cornea.

Dr. Jones, of Chicago, emphasized the necessity of a more accurate use of the mirror in ear disease.

Dr. D. H. Goodwillie, of New York, volunteered a paper on

ERECTILE TUMORS OF THE TURBINATED BONES.

He first called attention to the surgical interference necessary in exostoses of the vomer and turbinated bones, adenoid growths of the vault of the pharynx, nasal polypi, etc. A large variety of wax casts of deficiencies of structure and neoplasms was introduced, together with the surgical engines, which have lately been published in detailed form, with woodcuts, in the Medical Record, insufflators and other nasal instruments used by Dr. Goodwillie.

By invitation, Dr. E. S. Peck, of New York, presented a case of

PRIMARY CONJUNCTIVAL LUPUS

which had been under observation fourteen months. The present ulcer was the fourth of a group of successive ulcers, all confined to the conjunctiva and integument in the immediate vicinity. The first ulcer was situated upon the outer portion of the conjunctiva of the upper lid; the second upon its middle portion; the third was a group of ulcers at the inner canthus, and had an anatomical division into three ulcers. The ulcerated surface had not, as yet, invaded the ocular conjunctiva, and vision was perfect. The treatment had been mainly nitric acid, as a caustic, and anti-scrofulous formulæ. The ulcer was purely lupoid and a scrofuloderma. Its exceeding rarity was shown by the fact that in a summary of 167,318 eye-diseases, tabulated within a few years in the New York eye hospitals, only seventeen cases of lupus of the lid had been recorded. The case is elaborated in Seguin's *Archives of Medicine*, Vol. III., No. 3, June, 1880.

Dr. W. F. Holcombe, of New York, presented three papers, which were read by title:

"Removal of Secretions from the Tympanic Cavity and Mastoid Cells."

"Causes and Relief of Tinnitus Aurium."

"A Treatment suggested for Subacute and Chronic Otitis Media."

Dr. Turnbull, of Philadelphia, was prevented from reading a paper on "Observations with Cases of Aural and Auditory Vertigo," on account of a similar duty in the Section on Practical Medicine.

A note of apology from Dr. C. S. Bull, of New York, was read by the Chairman, on account of failure to present his "Contributions to the Pathology and Treatment of Vascular Tumors of the Lids."

The Section then adjourned.

Receptions were held during the evening at the houses of Mayor Cooper, August Belmont, and at the Academy of Medicine. In the latter place the members were entertained by Fordyce Barker, M.D., LL.D., President, and Prof. T. Gaillard Thomas, M.D., Vice-President of the Academy.

GENERAL SESSION.

Friday, June 4—Fourth Day.

The Association was called to order at 10 A.M. by the President.

The following were appointed as Committee on Dr. Beach's resolution concerning the social position of the members of the medical staff of the U. S. Navy: Drs. Wm. M. Beach, London, Ohio; C. Goodbroke, Clinton, Ill.; H. McGuire, Richmond, Va.; Wm. S. Briggs, Nashville, Tenn.; D. W. Yandell, Louisville, Ky.

A communication from Dr. Charles W. Stillman, of Plainfield, N. J., concerning the "sector splint" and letters of patent thereon, was laid upon the table.

A communication from Dr. Frederick Horner, Jr., U. S. Navy, containing a resolution adopted by the State Medical Society of Virginia, instructing its delegates to the American Medical Association to ask that body to take the necessary steps for establishing a mutual medical aid association was received favorably, and referred.

A resolution offered by Dr. Octerlony, of Louisville, Ky., and expressing disapprobation of the practice indulged in by some of distributing gratuitously medical journals among the laity, was laid upon the table.

A communication from the Philadelphia County Medical Society, concerning the abuse of medical charities, was received and referred to a special committee appointed by the chair, consisting of Drs. B. Lee, H. G. Piffard, S. W. Gross, and J. W. Green.

A resolution was offered by Dr. A. L. Carroll, of the Richmond County Medical Society, N. Y., as follows, "Whereas, The County Medical Society of New York has admitted to membership graduates of schools not recognized by this Association, therefore be it resolved, that societies which admit irregular practitioners to membership be debarred from representation in the American Medical Association." Referred to the Judicial Council.

The Treasurer's Report was then read, and showed the receipt of $5,025, and a balance in the treasury of $579.59.

The report was received, and referred to the Committee on Publication.

The Committee on Publication presented their report, which was received and referred to the Committee on Publication.

Dr. Pratt, of Michigan, offered a resolution, instructing the Committee of Arrangements to publish one programme of the work to be done in general session at the next Annual Meeting during the whole four days, instead of a daily programme, which was adopted.

Dr. Pratt also offered the following resolution, which was adopted, That the Committee of Arrangements be instructed to so place the proposed amendment to the Code of Medical Ethics upon the programme that it shall be made the special order at 10.30 A.M. of the second day's general session, and that it shall remain as a special order until disposed of.

The Committee on Nominations completed its report by offering the following:

For Secretary of Section—Dr. J. G. Cabell, of Va.

For Chairman of Arrangements—Dr. Cunningham, McGuire, and Culley, of Richmond, Va., with power to select others to make it a Committee of [illegible].

For Chairman of Publication—The same as last year—Drs. W. B. Atkinson, T. M. Drysdale, William Lee, R. J. Dunglison, Albert Fricke, S. D. Gross, and Caspar Wistar, all of Philadelphia.

For Chairman of the Section on Practice of Medicine—Dr. Wm. Pepper, of Pa.

For Chairman of the Section on Diseases of Children—Dr. A. Jacobi, of New York.

For Secretary—Dr. W. H. Bradford, of Boston.

The Committee also recommended that the following resolutions, passed by the Association last year at Atlanta, be recognized as remaining in force until further orders by the Association:

"That the Committee of Publication be instructed to advertise for proposals to publish the Transactions of this Association in six of the largest cities of the Union, and that the contract be awarded to the lowest and best responsible bidder.

"That the Treasurer be instructed to deposit the funds of the American Medical Association, monthly, as Treasurer, in the name of the Association, in the Farmers' and Mechanics' Bank, of Philadelphia."

The Report as read was adopted.

Dr. H. G. Pitfard, of New York, offered the following resolution which was referred to the Judicial Council: That the Richmond County Medical Society, N. Y., which has members who have been irregular practitioners of medicine, be debarred from representation in the American Medical Association.

Dr. Keller, renewed his amendment, That in the election of Officers and in the appointment of Committees, the Association and its officers shall confine themselves to members and delegates who are present at the Annual meeting.

Laid over under the rule.

Dr. Pallen moved a reconsideration of the vote by which the resolution relating to the printing of the Transactions, reported by the Committee on Transactions was adopted. Carried.

Dr. Pallen then moved that the publication of the Transactions for this year be assigned to the Collins Printing-house, as last year, without advertising. Carried

The Minutes of the Sections were then called for, and responses were received from the Section on Practice of Medicine and the Section on Surgery and Anatomy. They were referred to the Committee on Publication.

The Secretary moved that the Secretaries of the other Sections have permission to send their minutes accompanied by the papers, to the permanent Secretary of the Association, and that they be referred to the Committee on Publication. Carried.

Dr. Brodie, of Detroit, offered a resolution tendering the thanks of the Association to Mayor Cooper and lady, to Mr. August Belmont and lady, and to Drs. Barker and Thomas, for their receptions, to Postmaster James, to the officers of the Western Union Telegraph Company, to the officers of the Young Men's Christian Association, to the Medical Profession of the city of New York, to those who gave the entertainment at Booth's Theatre, to Wm. Wood & Co., to Dr. George F. Shrady, editor, for the enterprise exhibited in publishing a daily Medical Record during the meeting of the Association, to the daily press, to the College of Physicians and Surgeons, and to all others who in any way have contributed to the comfort and entertainment of the members of the Association during their stay in the city. Unanimously adopted.

A [illegible] was offered and adopted tendering a vote of thanks to the Committee of Arrangements.

Responses were made by Drs. Thomas and Pallen.

On motion by Dr. Mann, of Massachusetts, an honorarium of $1,000 was granted the permanent Secretary.

Dr. Hurd, Chairman of the Section on Medical Jurisprudence and State Medicine, offered the following resolutions as set up from the Section.

First, Endorsing the National Board of Health.

Second, That the Association recommend medical schools to establish a Chair of State Medicine as part of the regular course.

Third, That the name of the Section hereafter shall be, "Section on State Medicine."

Fourth, That the Committee on Prize Essays shall be Drs. S. L. Charles, of La., J. L. Cabell, of Va., and A. N. Bell, of N. Y.

The resolutions were all adopted.

The delegates from Canada were invited to seats on the platform, and Dr. Howard responded, acknowledging the special compliments which the delegation had received from the Association.

Dr. Bigelow, of Massachusetts, reported progress from the Committee appointed to report upon the feasibility of publishing the proceedings of the Sections in journal-tic form.

The report was accepted, and the committee continued, to co-operate with the Committee on the President's Address appointed to report at the next annual meeting.

The President then introduced Dr. John T. Hodgen, of St. Louis, the President elect, who responded appropriately to the call of the Association.

On motion, a vote of thanks was tendered to Dr. Sayre for the ability and courtesy with which he had discharged the duties of President.

The motion was unanimously passed by a rising vote.

Dr. Sayre responded in words of feeling and thanks for the uniform kindness which had been extended to him, and especially for the manifestations of sympathy and support which he had received from members of the medical profession all over the world, in the hours of his great bereavement and prostration caused by the sudden death of his eldest son.

The Association was then declared adjourned to meet in the City of Richmond, Va., on the first Tuesday in May, 1881.

THE EXCURSION TO CONEY ISLAND.

The excursion given by Wm. Wood & Co., in honor of the American Medical Association, took place on Friday afternoon. The steamer Grand Republic started from the pier at the foot of West Twenty-fourth Street, at 1 P.M., having on board nearly one thousand delegates and their friends. The weather was cool and pleasant, and the trip was duly enjoyed by the guests. The steamer took a route up the river as far as Yonkers, and returning passed around the Battery, and Blackwell's Island, thence down to New York Bay to the Iron Pier at Coney Island, arriving at the latter place about 5 P.M. Gilmore's band was in attendance, and during the trip to and

from the island discoursed elegant music. On the arrival at the pier a sumptuous repast was furnished, and after an opportunity for promenading and enjoying a fine view of the Atlantic, the excursionists betook themselves to the boat.

During the homeward passage a meeting of the delegates was called to order in the main saloon by Dr. Wm. Brodie, of Michigan, when Dr. Toner, of Washington, was chosen Chairman, and Dr. Shrady, of New York, Secretary. Dr. Toner, in a few brief remarks, stated that the object of the meeting was to express the appreciation of the delegates present of the elegant entertainment which they were enjoying. Appropriate speeches were made by Drs. Beverly Cole, of California, Adams, of Minnesota, E. M. Moore, of Rochester, N. Y., A. C. Post, of New York City, E. M. Hunt, of New Jersey, and Wm. Brodie, of Michigan. On motion, Drs. W. O. Baldwin, of Alabama, and Wm. Brodie, of Michigan, were appointed to draft suitable resolutions, when the following was offered and unanimously adopted :

"*Whereas*, by the munificence of William Wood & Co., the members of the American Medical Association and their friends have, under very favorable auspices, obtained views of the Palisades on the Hudson, the cities of New York and Brooklyn, the Bay of New York and the Ocean, and have also been entertained with a lunch on Coney Island ; therefore,

"*Be it resolved*, That the delegates and members tender their sincere thanks to Wm. Wood & Co. for their kindness and liberality in giving the Association such a delightful entertainment.

"*Resolved*, That the preamble and resolution be sent to the MEDICAL RECORD, and to the different medical journals throughout the country, for publication in the same."

After repeated calls, Mr. Wm. H. S. Wood, the Senior of the firm of Wm. Wood & Co., spoke as follows :

Ladies and Gentlemen :—This courteous reception and the kind words you have spoken, so wholly unlooked for, almost takes from me the power of returning my thanks. Permit me to tell you again what I know you have been told before, with what pleasure we anticipated your coming ; to tell you also of the gratification it has given me to prepare for you this slight evidence of the welcome which in common with all our citizens I have felt toward you. But now, while we have welcomed your coming with all our heart, the sad time has arrived when we must speed the parting guest. In thanking you again for your kindness, permit me to wish you all a safe and prosperous return to your homes scattered over every section of this grand republic. God speed you.

The excursion was in every way a success, and the large number of guests returning to the city at 9 P.M. were exceedingly well pleased with their entertainment.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 22 to May 29, 1880.

HARVEY, P. F., Capt. and Asst. Surgeon. Granted leave of absence for four months. S. O. 113, A. G. O., May 21, 1880.

THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE has received a donation of $4,000 from M. B. Burnet for the advancement of scientific research.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 29, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
May 22, 1880.	0	7	41	7	85	45	0	0
May 29, 1880.	0	6	58	7	86	31	1	0

ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF MEDICAL COLLEGES.—This Association held its annual meeting in this city, in the afternoon of May 31st. Its principal work was the unanimous passage of a resolution recommending the adoption of three full courses in separate years, as essential to obtaining a medical degree. It was also resolved that copies of the resolution be sent to the Association of Medical Editors, with a request for their co-operation in bringing about the three term course.

ENGLISH FEELING TOWARD FEMALE PHYSICIANS.—At a recent election of medical officers at the National Hospital for Paralysis and Epilepsy, in London, the trustees of the hospital, according to *The Medical Press and Circular*, subordinated the interests of the hospital to the gratification of an unreasoning prejudice. The way they did it was this : Dr. Allen Sturge had devoted himself for five years to the work of the hospital, and he was unanimously recommended by the medical staff to the position of senior assistant physician. The doctor, however, had married a lady of his own profession, and the trustees seemed to think that this act incapacitated him for a position on the hospital staff. He was, therefore, refused the position. Great indignation is expressed among his medical friends.

ASSOCIATION OF AMERICAN MEDICAL EDITORS.—The fifth Annual Meeting of this Association, was held in this city, May 31st, DR. FRANK WOODBURY, Vice-President, in the Chair, DR. DUDLEY REYNOLDS, Secretary.

An opening address was delivered by the Vice-President.

Dr. A. N. BELL read a very eloquent Annual Address, sent on by the President, DR. POWELL, that gentleman being unavoidably detained at home by sickness in his family.

A resolution of thanks for the address and of condolence for the illness which kept the President away, was unanimously adopted.

The question of adopting the metric system, after some debate, was laid on the table.

The Committee on Nominations then presented the names of the following gentlemen for officers for the ensuing year : for President, Dr. George F. Shrady, of the MEDICAL RECORD, N. Y. ; for Vice-President, Dr. R. S. Nelson, of the *St. Louis Courier of Medicine*, St. Louis ; for Secretary, Dr. Dudley Reynolds, of the *Medical Herald*, Louisville. Dr. Woodbury objected to the report, that it presented the names of gentlemen who were not members of

the association and were not present. He suggested that the report be returned to the committee. Upon being informed, however, that Dr. Shrady had been present, and was a member, he withdrew his suggestion, and the gentlemen named were unanimously elected.

The Association then adjourned to meet at the next place of meeting of the American Medical Association on the evening before the meeting of that body.

The Bill to Regulate the Practice of Medicine in New York State has become a law. We counsel all physicians therefore that it will be necessary for them to show their diplomas and register at the County Clerk's office before the first of October next. The fee for registration is twenty-five cents.

The Entertainment at Booth's Theatre to the American Medical Association.—On the evening of June 2, a complimentary entertainment was given to the Members of the Association, at Booth's Theatre, by Messrs. Reed and Carnick, Scott and Browne, and the New York Pharmacal Association. Shakespeare's Tragedy of Othello was presented, Mr. Edwin Booth taking the part of Iago, Mr. Robinson that of Othello, Miss Atkinson that of Desdemona, Miss Cummins appearing as Emilia. The orchestra was under the direction of Mr. Thomas H. Joyce.

Nothing was left undone by the hosts to make the entertainment in every way a success. There were no reserved seats and the house was crowded with delegates and their lady friends, so that there was scarcely standing room. The programmes were handsomely engraved and tastefully encased in beautifully colored ribbon and stamped in gilt with the head of Hippocrates and with the title of the Association.

The acting was superb, Mr. Booth being much better supported than usual. Altogether, the evening was one long to be remembered by each and every one of the large audience present.

Cure for the Tobacco Habit.—Dr. F. B. Millard, in the *Medical and Surgical Reporter*, revives the question of the value of "pine apple," as it is called, as a cure for the tobacco habit. This substance is a fungus that grows upon pine trees. Dr. M. says that he has used it himself, and has prescribed it often, and has never seen a case in which it did not eventually eradicate the craving for tobacco. The taste is not unpleasantly bitter, and it is to be used about as a moderate chewer uses tobacco.

Medical Night Service.—The bill of Dr. Henri Nachtel, for the creation of a medical night service, was passed by the New York Legislature, and is awaiting the signature of the Governor.

Trichinosis on a British School-Ship, Simulating Typhoid Fever.—Last fall a mysterious epidemic of what was thought to be typhoid fever broke out on the English training-ship "Cornwall." One of the boys died and a large number were ill, the symptoms resembling sometimes typhoid fever and sometimes simple continued fever. The remains of the boy who died were, after a period of fruitless investigation into the cause, exhumed, and abundance of trichinæ found in the muscles. This, with the fact that the boys had boiled American pork every week, settled the question of trichinosis. The closeness with which the disease simulated typhoid fever in some cases was remarkable.

Toxic Effects of Aconite in a Case of Acute Articular Rheumatism.—Dr. S. C. Dumm, of Canastota, Ont., reports a case of acute poisoning in a young lady who was suffering from rheumatic fever. Along with other remedies, including opium, three drops of tinct. aconite were ordered every three hours. By mistake ten drops were given every three hours. The next day when the doctor called the patient was almost collapsed, the skin cold and clammy, pulse hardly perceptible, heart's action irregular in rhythm and force, breathing labored, and an agonizing sense of oppression in the cardiac region. Brandy was administered, and in a few hours she felt as well as ever. Dr. Dumm is inclined to think that the opium she had previously been taking had some influence in preventing the worst effects of the aconite.

After recovery from the poisoning, nothing more was heard from the rheumatism: that disease was completely aborted.

Severe Gunshot Wound of the Shoulder; Amputation and Recovery.—Dr. David B. Capriles, of Caracas, sends us an interesting account of an operation performed by Prof. C. Avila and himself, assisted by Dr. W. Schoenbrunmark. A young man accidentally discharged his musket, loaded with shot, into his right arm and shoulder. An immense lacerated wound resulted, the deltoid and pectorales muscles being torn up from their insertions, and cavities formed large enough to pass in the whole hand.

There was great loss of blood, and almost fatal collapse; but the patient was rallied by stimulants. Next day the operation was performed, the humerus was dislocated, and an immense inferior flap formed, this being the only thing that the lacerated tissues allowed. The hemorrhage was controlled by pressure on the subclavian. While the anæsthetic was being given, the patient was attacked with epileptic convulsions, but these were finally subdued. The man made a rapid and complete recovery.

Further Reports Regarding Bromide of Ethyl.—*The St. Louis Medical and Surgical Journal* contains a report of two cases in which this new anæsthetic was given to a boy of four and a girl of fifteen. It nauseated the boy, and did not work very well with the girl.

The *Chicago Medical Gazette* reports a case in which the anæsthesia was satisfactory.

At the New York Marine Hospital, Dr. W. H. Heath has given bromide of ethyl in ten or more cases. There was considerable struggling, with spasmodic contractions, in two or three cases; nausea followed occasionally. On the whole, however, the results were very good.

A Corner in Opium is said to be already formed, and the price of the drug has risen from about $4.50 per pound to $6.50 or $7. There was a short crop last year owing to the heavy rains in Turkish Asia. The average crop is about 75,000 pounds, which supplies the demands of the world, with a little surplus; that of last year is estimated to have been one-half of the above amount. There are now 60,000 pounds of opium in the market; one-half of this has been bought up by a syndicate of New York and London men. It is considered probable that this syndicate will run the price up to $8 or $10 per pound, or more. Such a corner as this was made a number of years ago, and then opium was sold in job lots at $30 a pound. The present "corner" will not be able to create any such prices as this, however.

Original Lectures.

ETIOLOGY AND TREATMENT OF UTERINE DISPLACEMENTS.

By MONTROSE A. PALLEN, M.D., LL.D.,

PROFESSOR OF GYNÆCOLOGY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

Part I.—Etiology.

Gentlemen:—The class of uterine cases to which I desire to call your attention to-day, will be that of which we see the greatest number in practice. I think about sixty per cent. of the cases which I have treated at this clinic have been versions and flexions, or upward and downward displacements. Now, there are so many theories, and such contradictory ones, it is but proper that we should have some correct idea of the conditions producing these various troubles. If we read "Hodge on Women," who, up to within ten or twelve years, was looked upon as the best authority in the United States, or such authorities in Great Britain as Ashwell, Bennett, Tilt, and many others, we get a confused idea that displacements of the uterus depend upon relaxation of the so-called ligaments. Now, I propose to show you that there never existed a case of uterine displacement dependent upon relaxation of the so-called ligaments of the uterus. First and foremost, there are no ligaments proper, the only approximation being what are known as the round ligaments; but even this is a misnomer, as the so-called round ligaments contain contractile tissue, analogous to the cremasters of the male. They pass out of the pelvic excavation through the abdominal rings and are inserted through the canal of Nuck into the labia and are expanded upon the dartoic sac, just as the cremasters of the male are expanded upon the testicles. Under certain physiological excitement, the round ligaments draw the uterus down, in the same manner that the cremasters in the male draw the testicles up, during certain physiological conditions, viz.: that of erection of the penis. If we examine the uterus we find it swung in the centre of the pelvic excavation, and in a line almost parallel with the axis of the inlet. If it were on a line drawn from the umbilicus to the coccyx it would be parallel with the axis of the pelvis, but its inclination is more forward, and the axis of the uterus corresponds with a line drawn from midway between the umbilicus and pubic bones to midway between the third and fourth bones of the sacrum. Now, what is it that holds the womb in that position? The old writers led us to believe that upon either side the entire support is received from the broad ligaments, and that anteriorly it is held by what is known as the round ligaments.

We are further led to believe that the uterus is prevented from tilting forward by some duplicatures of the peritoneum, through which run certain muscular striæ which are inserted just at the junction of the sacral with the lumbar ligaments. Therefore the uterus is suspended in the central portion of the excavation, and whenever it turns forward or backward it revolves upon its axis of suspension. It was a very plausible theory that this axis of suspension was controlled by the ligaments. The utero-sacro-lumbar ligaments, the posterior ones, are in reality the only ones that possess any sustaining power, as far as the position of the uterus is concerned; mark you, I say *position*. The reflections of the peritoneum are called ligaments. If they were ligaments in the proper sense of the word, they would probably be of a fixed and given size, and have a definite origin and insertion, as is the case with ligaments in other portions of the body. As it is, they are nothing more than a loose collection of fibres, slightly bound together by connective tissue. Now, is it probable that tissues of this kind could, without other assistance control the position of the uterus? I certainly think not. My opinion is that the uterus is held in position partly in consequence of these, but not entirely by them. If we prop up a weight, or column, for instance, and it rests upon a solid foundation, very slender cords upon either side will prevent it from swaying to and fro. We find that a flagstaff upon a house may be retained in position by very slight ropes or wires, and in the same way we find that these so-called ligaments hold the uterus in position. But the uterus is principally, if not altogether, retained in position by its attachment to other structures. First, let us examine its attachment to the bladder. There are what are called utero-vesical ligaments, bands of pelvic fascia and uterine muscular tissue passing between the bladder and the cervico-corporeal junction, to which points they are attached, and prevent the retreat of the cervix. We find that passing backward there is another reflection of the peritoneum, which is glued to the structure of the uterus by means of the sub-peritoneal tissue, and that it is again reflected upon the rectum. Thus we see we have an anterior and a posterior attachment. We have also a certain degree of fixation on either side, as a result of duplications of the peritoneum being glued to the uterine structures. These are nothing more than the ropes which hold the flagstaff in position, and the base upon which this flagstaff rests is the vagina, and it alone, practically gives support from below to the uterus above.

But the actual determining factor in the position of the uterus which is variable, is nothing more nor less than its vascular supply. The great mistake which has hitherto been made by all of the above named writers, is, that they either forgot, or did not know, that the pelvic contents are principally the generative organs, which consist of nothing more nor less than a series of erectile structures, and that these alone produce changes in consequence of changes in the vascular supply.

It is perfectly normal for a man's penis to become erected under certain conditions. So with the uterus; it is perfectly normal for the uterus to be in one position and subsequently in another, the position which it occupies depending upon the vascular supply.

If we examine the blood supply of the uterus, we find a very generous distribution of vessels, just as we find in the male organ. In the latter, if a single trabecula gets diseased, it interferes with the blood supply of that organ, and hence, during erection, we find greater or less deformity of the penis as a consequence. Where the meshes are broken there will be an irregular distribution of the blood, and the greater the injury the greater the distortion. There are cases upon record where the organ, when erect, was bent like a flexed uterus. Now mark you, I do not wish you to think that the penis is homologous with the uterus, but its vascular supply is analogous. An erection of the tissue depends upon an increased supply of blood, and so long as this condition obtains, so long does the organ remain erect. We find that in the female, the uterus becomes erect under

certain physiological conditions, and in many other conditions which are pathological, for instance, when the blood-vessels of the uterine and ovarian plexus and tissue around the clitoris maintain a retention of blood. Under these circumstances the uterus (in its normal, non-erected condition, lying suspended, flabby and flaccid) becomes engorged, increases in size, stands up in the pelvis, and after awhile becomes globular in form. If displaced posteriorly, retroverted, the convexity of the posterior segment will be increased. With the female, there is always a menstrual hypertrophy of the uterus which is purely physiological. After the subsidence of menstruation, after the rupture sanguinis has passed, the organ assumes its previous relative flabby and flaccid condition. The only analogue that I can give you is that of the erection of the male organ in consequence of the bladder being filled with water. So the uterus is filled with blood during menstruation. By evacuation of the male bladder, thus relieving the mechanical obstruction to the return of blood, the vessels empty themselves, the reflex erection subsides. So in the female organs of generation.

No man has ever seen in the dead subject a displacement caused by the stretching of the so-called ligaments of the uterus, except where this organ is dragged or pushed down by some abnormal growth. Whenever we find the uterus changed in position without any interference in the circulation we find some extraneous, some foreign cause. But where we find cases of retroversion or retroflexion, we frequently have none of these foreign, outside conditions, those which I now explain to you as extra-vascular.

We have now come to that point in the study of the etiology of our subject where we may say that displacements of the uterus are divided into two classes. First, the vascular, due to conditions which I have just tried to explain to you. Second, the extra-vascular, due to such causes as tumors and new growths of various sorts, or any cause which produces pressure from above, dragging from below, or giving way of inferior support. By change in the vascular condition, we mean those alterations which take place in the blood-vessels themselves. CONSEQUENT UPON THESE CHANGES, THERE IS A LOSS OF THE ERECTILE POITION OF THE UTERUS AT THAT POINT WHERE THE DISORDERED BLOOD-VESSELS ARE DISTRIBUTED. Let us now examine a class of cases, of which many have been presented to you. A patient presents herself who says that from the beginning of her menstrual life she has had pain, that it increased with each succeeding menstruation. She is single, has borne no children, is twenty-three or twenty-four years of age, and has always been the subject of dysmenorrhœa—dysmenorrhœa proper—for there is obstruction to the escape of the menses. We examine the patient and find an undue bending forward of the uterus, an anteflexion, or we may find retroversion or retroflexion, though not so commonly as anteflexion. In a great majority of cases, the uterus is bent forward, and why? Because, in the prepubertic girl the normal position of the uterus is with its axis tipped forward, and the cervix markedly developed. Such a woman's uterus is exposed to an excess of the normal position — to an anteflexion. It has reached this point before the patient has her first menstruation. What is her first menstruation? It is that disgorgement of blood from the uterus which the pelvis contains in consequence of the first development of the mature egg in the ovaries or the ovary, as the case may be, where there is ripened Graafian vesicle, and this, through cell action and reflex excitability, begets erection. If from developmental action, if from some superincumbent weight, a flexion exists, it will be exaggerated, as the veins become flattened upon themselves and the nutrient vessels, the arteries, become thin and stretched—a diminution in the supply of blood ensues, and the probabilities are that the pathological process undergone at that first time may be only the obliteration of one or two little capillaries. There is perhaps a thrombus formed. It is the first drop of water upon the stone.

At the next menstrual period the parts undergo a little change in consequence of this microscopic thrombus. These small blood vessels become larger and larger, and the uterine walls more bent, and in the cavity of the uterus there is retention of blood that excites an irritation or inflammation, as the case may be, of the lining membrane. This begets hyperæmia, and hypersecretion, and an excessive quantity of mucus is retained, acting as a continuous source of irritation, so that at the next menstruation we have the mucous membrane more tender than it was before, and the capillary blood-vessels are more dilated or obstructed, hence increased perivascular infarction, and a larger area of subsequent ischæmia. There is more space to which nutrition does not go, and the framework of the uterus is increased upon the opposite side, because, if there is a cutting off of the blood in certain portions of the organ, the other side increases in consequence of hypernutrition. Hence, in anteflexion, we may have thickening of the posterior wall, amounting to actual hypertrophy. We have primarily degeneration and atrophy in the anterior wall, and on the opposite side (on the non-contracted side of the uterus) there is an increase in tissue because of the tendency of all organs to compensatory vascularization. Now we have a distinct pathological process undergone, and that pathological process becomes one of atrophy, the tissues finally undergoing fatty degeneration. The order of things is not as described by Dr. Emmet in his late masterly work on the "Principles and Practice of Gynæcology," namely, that fatty degeneration occurs in consequence of the flexion. It is just the other way, flexion takes place in consequence of fatty degeneration. This is the etiology of flexions of the uterus. They depend primarily upon a passive ischæmia, a local anæmia. If I press upon my forehead and then remove my thumb, I find the surface pressed upon has become white; that is ischæmia; a diminished supply of blood in the capillaries, mechanical ischæmia, or localized anæmia. The pressure upon these blood-vessels, for the time being, paralyzed the vaso-motor nerves, and the passage of blood was interfered with until the vaso-motor nerves could regain their power. Here you see illustrated the first step in the degeneration of tissue. Paralysis of the vaso-motor nerves interferes with the circulation, and we have engorgement in consequence. Subsequently amœboid movement of the white blood corpuscles may be detected, and following this we have inflammation.

Now, the same thing takes place in the uterus, only to a greater degree, because it is composed largely of erectile tissue. The arteries supplying the organ are arranged somewhat in the form of a helix, and by reason of this our writers have conceived the idea that it was for the purpose of accommodation to a larger blood supply by expansion. The blood-vessels are arranged in this way so that a

greater quantity of blood can be rapidly poured out at the time the erections which I have been speaking of, take place. If œdema take place, the blood is not prompted to return, and what are the consequences? Just what I have shown you by pressure upon the forehead with my thumb. We have primarily ischæmia; secondarily, amœboid movements of the white blood corpuscles, and then inflammation. When this takes place in women who have never borne children, then we have most frequently anteflexion of the uterus; in women who have borne children, the womb is liable to posterior flexions, and these latter displacements are frequently produced by tight bandaging after labor.

What is the consequence of this tight bandaging? The abdominal fascia and the abdominal skin which has been stretched during several months is at this time very flaccid. As involution goes on the bandage is from day to day drawn tighter and tighter. Let there be a thrombosis (at the point of the bending of the uterus produced by the bandage) and frequently as a result, retroflexion. All flexions are nothing more nor less than a bending of the organ upon itself, primarily in consequence of and subsequently producing changes in the vascular distribution; all versions are nothing more nor less than a turning of the organ upon its axis, in consequence, not so much of the distribution of the blood-vessels in the uterus itself, as in the distribution of the peri-uterine blood-vessels. Suppose we have in the uterus, as we do most always, a swelling in consequence of a thrombosis or varicocele of these blood-vessels; suppose, as we frequently do have, an obstruction to the return of blood in the mesenteric and hemorrhoidal circulation, and the blood is retained there: what is the consequence? Wherever these capillary blood infarctions take place, we find œdema of the parts, and a slight inflammation ensues at one point or another in the œdematous spaces. The large majority of these versions ensue in consequence of trouble at the menstrual period, or abortion, or after labor. The normal menstrual hypertrophy makes the uterus about three times its natural size, and abortion increases its size according to the month at which it takes place, and labor at full term increases its dimensions according to the size of the child. In proportion to the growth in the length of the uterus so does it increase in thickness. If the normal size of the uterus be represented by the figure I, its size during menstruation by the figure 3, its size at the time of an abortion by 80, 90, or 100, then its size at full term would be represented by 200 or 300. So, if we have a thrombosis occurring at such times in the way above described, we may look for displacement of the uterus in consequence of gravitation. Where there are effusions, there are always tendencies to displacement. In all parts of the body wherever there is an increase in the quantity of blood, and it is retained, it matters not where it may be, it has a tendency to get outside of the blood-vessels, to be effused, no matter where such retention occurs, whether in the scrotum, eyelid, or elsewhere. Now, when we know that these facts exist; when we know that there are no such things as true ligaments which support the uterus, when we know that the organ is displaced backward, downward, and forward in consequence of vascular changes, we know that these displacements cannot depend upon stretching of the so-called ligaments. It strikes me that such a deduction is unanatomical, unscientific, and absurd. The treatment of this class of cases will be considered in the next lecture.

Original Communications.

ON CYSTOTOMY FOR CYSTITIS IN THE MALE.

By ROBERT F. WEIR, M.D.,

SURGEON TO THE ROOSEVELT AND NEW YORK HOSPITALS.

(Read before the American Medical Association, June 2, 1880.)

THE thorough drainage of the bladder for the treatment of a rebellious cystitis and the placing of its inflamed walls at rest by an opening into its neck, as in lateral lithotomy, is analogous to various operations resorted to elsewhere in the body. The urethra, for instance, is tapped posteriorly to allow a fistula in front to heal; tracheotomy is employed to rest and aid in curing a specifically ulcerated larynx, and the colon is similarly opened to secure cicatrization of an ulcer or rest to an irritable neoplasm in the rectum below. This procedure applied to the bladder has now been fairly before the profession for thirteen years, for in 1867 it was brought to the notice of surgeons in this country by a paper read before the New York State Medical Society, by the now venerable and venerated Dr. Willard Parker.

The article was entitled "Cystitis and Rupture of the Bladder Treated by Cystotomy." Some two years since, while engaged in preparing a lecture on this subject, I met with some important points of historical interest connected with this operation, which concerned the question of its priority, and it seemed as if the palm should be awarded to some one else than to the distinguished surgeon just named. My discoveries were as follows: in a paper entitled "Observations on Lithotomy" by E. Bickersteth, published also in 1867, in the *Liverpool Medical and Surgical Reports*, for October, I found an account of a case in which this surgeon, thinking "that the rest," to quote his own words, "afforded to the bladder by an incision through its neck, permitting the constant escape of the urine without any muscular contraction on its part, might act beneficially," performed this very operation with marked success.

My regret that America could not claim this mode of treatment, on reading this, was great, but it became the greater when I furthermore learned that a Mr. McCraith, a surgeon in Smyrna, had also, in June of the same year, 1867,* detailed an account of a median section of the perineum with a subsequent incision into the prostate for the satisfactory cure of an obstinate cystitis. Here were three independent experiences in this mode of treatment emanating in the same year. To whom should the credit be given? This was apparently easy to settle, for Dr. Parker's paper was read earliest in the year, viz., in February, but McCraith's† paper referred to a case of Sir Wm. Fergusson's that had been published in 1855, which was imperfect not only in its details, but in its designs. Fergusson resorted to an operation which he describes as "not like lithotomy but more in the manner of Symes, or Allerton's operation, in the median line of the perineum, with the intention" (he says further) "of cutting across the nervous plexuses and irritable parts at the neck of the bladder." His operation was likewise followed by a com-

* Med. Times and Gazette.

† McCraith also refers to Bouchardat as having done the operation in 1803. A diligent search has failed to verify this reference.

ble recovery. On referring once again to the records of Dr Parker and Mr Beckersmith to determine the actual priority of the performances, not the publication, of the operation, it was ascertained that the Liverpool surgeon had first employed cystotomy in 1857, and that the American surgeon had done it first in 1859, seven years earlier, but what placed everything beyond a cavil was that Dr Stephen Smith had already published Dr. Parker's case in the *New York Medical Journal* for 1857. Thus the priority not only of the performance of the operation, but of its publication, belongs properly to our octogenarian surgeon, Dr Parker.

The operation in the male was not repeated here or elsewhere until 1866, when Professor Eve cured a case of cystitis by bilateral cystotomy, though previous to this time cystotomy had, in 1861,* been resorted to by Dr Emmet for cystitis in the female. Since 1866 the progress of this mode of treatment has been more rapid. In 1868-69 Dr Powell, of Chicago, used it in several cases, but I have only been able to obtain access to two of these, and one, somewhat singularly enough, was for an extravasation of urine. It is not clear why cystotomy should have been done in this case.

In 1869, Dr. Battey, of Georgia, also had recourse to this operation, with a successful issue. Up to the present time it has been performed some forty-seven times, and by the following-named surgeons, in addition to those already mentioned: Drs. Van Buren and Keyes, Erskine Mason, Briddon, Little, Conley, Post, Howe, and L. A. Stimson, of New York; Hutchison, of Brooklyn; Jones, of Toledo; Owens, of Chicago; Cummings, of Virginia; and Barss, of Massachusetts. While in Europe the operators are Parona, Modoro, Dolbeau, Virmontier, Teevan, and Bryant. Several of the European cases were for spasm of the bladder, or that condition where painful and frequent micturition was not usually conjoined with an altered urine. Without asking your attention to these cases at length, I would now venture to bring to your notice certain deductions that can be made from an appreciation of such a total as this.

The first question that arises concerning any new method of treatment refers to the risk of the procedure.

While in cystotomy for cystitis in the male the mortality of thirteen cases out of forty-seven collected, is great, yet a closer scrutiny shows that of these ten were due to advanced kidney changes, and that most of these complications were present in men past the meridian of life; or, in other words, that in the young subject, or in those where the cystitis has not been of very long duration, the operation is less hazardous—a conclusion that should be expected. In only three cases was death the result directly of the operative interference: one case, Conley's, within twenty-four hours, from a fatty heart; in another, Hutchison's, death ensued within a week from the operation from exhaustion; and in the third, Mason's, death was due to secondary hemorrhage on the fourteenth day.

The difficulty of recognizing the existence of a renal inflammatory process coincident with a cystitis must always be admitted, and its possibility must always be kept in mind in all operations on the urinary organs. Yet, as Bryant has well said, a clean cut into the bladder of a man with sound kidneys is not a very dangerous proceeding, and Dr Parker, in a recent letter to me, has laid stress upon the same point.

Next in order to the safety of the operation is the consideration of the amount of benefit that has been derived from it. Here we have an agreeable surprise. From what I had witnessed in some of the cases of my colleagues, and from the expression of opinion that had emanated in a recent discussion on this subject before the New York Surgical Society, based, it is true, upon the recital of a comparatively few cases, the impression had been created that the operation was hardly a justifiable one, not only by reason of its risk, for a large proportion of all the deaths were then presented (Briddon's, Mason's, and Hutchison's) or noted (Bryant's), but also from the very moderate amount of benefit that was stated to have been derived in the cases that had recovered from the operation. Dr Keyes, who had had, with Dr. Van Buren, an experience of two cases, believed that only a certain amount of relief was to be obtained, and that but of a temporary character, and that, as a rational means of cure, there was no special reason why the operation should succeed unless aided by other measures.

On looking, however, at the figures that have been here obtained, it is found that in the thirty-four cases that recovered twenty-three were cured—that is to say, either were cured absolutely or so greatly relieved as to be enabled to attend to their vocations, retaining their urine from three to four hours, etc. Seven were relieved, that is, were decidedly benefited by the operation, and only four have been reported as failures, the return of the symptoms dating from the closure of the wound. One of these failures, however, felt that the operation had so much relieved him that he was anxious later that another trial should again be made.

From this recapitulation it is evident that much encouragement can be taken in the continuance of the operation as a legitimate mode of treatment, and that experience fully justifies the words of Dr. Parker, written to me within the past ten days, that he never had greater confidence in the philosophy of the operation and the success of it than he had to-day.

A very interesting circumstance occurred in one of Van Buren and Keyes's cases: this was the removal, at the time of the incision into the bladder, of the hypertrophied median lobe, in a bifid state, and also of a pedunculated tumor as large as a marble, which was attached to the trigone, just posterior to the prostate. This patient recovered without any untoward symptoms, the wound healing at the end of the fifth week.

The operation was of great service, but the benefit that was derived from it was considered to be due not so much to the cystotomy as to the removal of the prostatic outgrowths. These same surgeons, in the removal of a stone from the bladder, in 1874, accidentally caught and purposely twisted off the hypertrophied median portion of the prostate, with the effect, after the recovery of the patient, of his urination being accomplished without the aid of a catheter—a means that, prior to the operation, had always to be employed to accomplish the voidance of a single drop of urine. Also in one of Dr. Mason's cases of cystotomy, the third lobe was removed.

This feature in lithotomy or cystotomy is not a new one, but a sufficient number of cases have been accumulated for a moment's consideration of the subject. Sir Wm. Fergusson, in 1849, presented to the London Pathological Society two tumors, the size of a filbert and horse-bean respectively, that he

* Emmet's paper was published in the Transactions of the New York State Medical Society for 1872, but in the Giornale Veneto, April, 1862, Aran published a case of cystitis in the female successfully treated by cystotomy.

had removed with the forefinger from the middle of the prostate gland during an operation of lithotomy; the patient making a good recovery. In the *Lancet* for January 1, 1870, in a lecture on "Lithotomy, and on Certain Cases of Enlarged Prostate," he further stated, that he had since repeatedly followed this practice, and advised that it should be admitted as a recognized surgical procedure. A counter statement has, however, recently been made by no less an authority than Sir Henry Thompson,* that, inasmuch as the median portion of the prostate when enlarged, was large and shapeless and not pedunculated, it would be therefore impossible to remove it. He also said that he had seen only one case wherein this procedure had been attended with benefit.

If the report of Thompson's remarks is correctly made, they are such as would be negatived by an examination of the specimens of enlarged prostate in any good-sized hospital museum. This enlargement of the prostate is not infrequently to be met with in such a condition as to be removable by an operation, and in a case of Dr. Markoe's, where lithotomy was performed, in 1860, for the extraction of twenty-six calculi, the median lobe was removed intact, having plainly quite a slender neck. To close this part of the subject, as well as to put in form all our knowledge of this procedure, your indulgence is asked to the following cases of Mr. Thomas Bryant, and to his conclusions deduced therefrom, which seem to me to be fully warranted. Nearly all the cases, however, are unfortunately defective in one important consideration, and that is: in none of them has the bladder been tested by the introduction of a catheter to determine the presence or absence of residual urine. Unless atony existed to a great degree, the removal of the obstruction would have probably overcome or lessened this symptom. Mr. Bryant's† first case occurred in 1865, in a man sixty-seven years of age, in whom, for stone in the bladder, the lateral section of the prostate was made by Aston Key's method. In extracting the calculus a portion of the prostate was caught in the forceps and removed by traction. It appeared to be the enlarged third lobe or median portion of the gland. The patient recovered, and reported, several years afterward, that he was still well in all respects and that he could hold his urine for hours and that he had no bladder trouble whatever.

The second case presented itself in a man seventy years of age, who underwent lateral lithotomy, in 1876, for stone, with Aston Key's staff. The perineum was so deep that the bladder could not be reached and a blunt gorget was employed. In removing the stone, which was a large one, some resistance was experienced, and on examination it was found that a portion of the prostate was caught. The forceps were rotated, the stone being still held, and the prostatic growth pressed back with the finger. Nevertheless, on traction being made, the stone and the portion of the prostate came away together. A depression could then be felt in the region of the third lobe. In six weeks the wound had healed, the patient then passing normal urine and being able to retain it during the day for three hours, and during the night for six. In fact, all his bladder symptoms had disappeared and he was in better health than he had been for many years. A microscopic examination proved the prostatic nature of the tumor, and no injurious action was exerted on the convalescence of the patient.

Bryant advises that surgeons in similar cases should adopt the same practice, and, indeed, he says, "I would advise, in all operations of lithotomy in the aged, that the condition of the prostate should be examined into with a view to the removal of such portions as may project into the bladder injuriously, and, though I am not prepared to recommend that the operation of cystotomy should be performed in all cases of chronic cystitis resulting from an enlarged third lobe of the prostate gland, I would venture to suggest the expediency of its applicability to exceptional cases, believing that a clean cut into the bladder of a man with sound kidneys is not a very dangerous proceeding and that the removal of a prostatic tumor projecting into the bladder, by some crushing forceps or scissors, would not greatly add to the danger."

Therefore, it is a fair conclusion, from the consideration of these remarks of Fergusson and Bryant, and from the facts so far presented, that not only is cystotomy of decided service in the treatment of cystitis, but that it is advantageous to join with it, when possible, the removal of the enlarged median portion of the prostate, or such tumors of the gland as are readily enucleable.

But the inquiry into the merits of cystotomy should not stop here. Not all the cases were treated by the lateral section of the prostate; in only 32 cases was this method of opening the bladder resorted to, in 5 cases the bilateral incision was made, and in 10 the median. Here a serious question may arise, for in the 32 lateral cystotomes there were 11 deaths, in the 4 bilateral sections 1 death, but in the median operations, 10 in number, only one death occurred. While it may be conceded that median lithotomy has a somewhat lower death-rate than lateral lithotomy, yet here the difference in mortality is more reasonably to be assigned to the coexistence of the lesions of the kidney already alluded to.

A priori, it would be said that the median section, as usually performed for the removal of a stone from the bladder, was not applicable to the relief of an obstinate cystitis, for by this operation no drainage, and therefore no rest of the bladder, can be obtained. Indeed, the advocates of median lithotomy claim as one of its advantages that the retentive power of the bladder is not interfered with by the operation, and hence the patient is saved the constant soakage of a continually wetted sheet, etc. In examining carefully these cases of cystitis treated by the median cut, it is however found that 6 out of the 10 were cured completely, consequently that the bladders were put at rest; also that in the 10 cases, 3 were supplemented by sections of the prostate gland to a moderate depth (varying from two to four lines), and in 5 others, by dilatation by a finger (once) or by a bivalved speculum (four times), to the extent of stretching the prostate to the diameter of an inch, or by the simultaneous forcing of two fingers into the bladder (once). In two cases the mode of procedure is not given in full.

Now, the researches of Dolbeau and Teevan have heretofore shown us that the prostatic urethra will dilate without rupture only up to a diameter that ranges from $\frac{1}{2}$* to $\frac{12}{12}$† of an inch; most forefingers at the second knuckle equal or exceed this greatest diameter. Therefore it is most probable that in the cases where the usual median incision into the membranous urethra was resorted to with the simple introduction of the finger into the bladder, and drain-

* Med. Times and Gaz., vol. i., p. 710, 1879.
† Trans. Path. Soc., London, vol. xxix., p. 164.

* Teevan. † Dolbeau.

age was thus effected, the prostate sustained a certain amount of rupture—which idea is borne out by the fact that a permanent fistula (not always, however, acting as a drain) was more frequently met with after the median operation.

In concluding these somewhat fatiguing statistical remarks, attention is called to a point alluded to by Dr Battey, that it was difficult to keep the wound open long enough to give ample rest to the bladder. This is, to a considerable degree, true. Excepting two cases, the time of the closure of the wound in the successful cases varied from two to twenty weeks; the average was nearly five weeks. In the two excepted cases, Battey's and Harris's, the wound was kept open for eighteen months; in the latter case a tube was worn all this time. By judicious management the wound can be kept open from five to eight weeks, and sometimes longer. This is best accomplished by inserting within the first ten days, preferably the finger, or a large, soft tube, from the perineum into the bladder every second or third day. After this period has elapsed, a flexible rubber catheter, just entering, but not projecting much into the bladder, will often be well retained, certainly better than if used from the beginning.

37 West Thirty-third Street, N. Y.

No.	Name.	Age of patient.	Mode of Operation: Median	Mode of Operation: Lateral	Wound open	Result: Cured	Result: Relieved	Result: Failed	Result: Died	Remarks.	Reference.
1	Parker, of N. Y.	50	.	1	..	..	..	..	1	Cystitis was severe and had lasted over two years; patient much relieved; death due to renal disease.	N. Y. Jour. Med., 1851, also Trans. N. Y. State Med. Society, 1867.
2	Sir Wm. Fergusson, London.	?	1	..	..	1	..	..	..	Final report three months after operation.	Lancet, Oct. 13, 1855.
3	Eve, Tenn.	24	..	..	1	11 weeks.	1	..	..	Success recorded as perfect; cystitis had continued for seven or eight years; operation performed in 1866.	Parker, Trans. N. Y. State Society, 1867.
4	McGrath, Smyrnia.	?	1 Prostate also divided a few line.	..	..	1 month.	1	..	..	Relief great, though not entirely cured.	Med. Times and Gaz., June 15, 1867.
5	Rickersteth, Liverpool.	45	..	1	..	2 months.	1	..	..	Tube left in one week, and then passed every other day.	Liverpool Medical and Surg. Reports, Oct., 1867.
6	Rickersteth, Liverpool.	Elderly man.	..	1	..	..	..	1	..	Patient had cancer of the bladder; he continued for a long time in comparative ease.	" "
7	Powell, Chicago.	60	..	..	1	43 days.	1	..	..	Performed for extravasation of urine and sloughing.	Chicago Medical Jour., Mch., 1869.
8	" "	?	..	1	..	?	1	..	..	Reported by Dr Ingals as a complete recovery.	Medical Record, Dec 2, 1872.
9	Battey, Georgia.	59	..	1	..	18 months; tube kept in 6 weeks continuously.	..	1	..	The cystitis had been of long duration; relief very great; patient would often hold water for three hours. Dr B. thinks the operation should be done early.	Trans. Georgia Med. Assn., 1872.
10	Dolbeau, Paris.	?	..	..	..	..	1	..	..	For spasm of the bladder.	Hevia: Thèse de Paris, 1868, also Dolbeau Leçons Chirurg., 1867.
11	" "	?	..	1	..	..	1	..	..	" " " "	
12	Gouley, N. Y.	50	..	1	..	..	..	..	1	Death occurred within 24 hours after operation from fatty degeneration of the heart. Operation performed in 1872.	Personal communication.
13	" "	45	..	1	..	6 weeks.	..	..	1	No benefit from the operation.	" "
14	" "	46	..	1	..	5 months.	..	1	..	Benefit moderate; urination every two hours when patient left hospital.	" "
15	Mason, N. Y.	56	..	1	..	..	..	..	1	Death from uræmia within a week from operation, which was done in 1873.	" "
16	" "	49	..	1	..	..	..	..	1	On the fourteenth day death occurred from secondary hemorrhage.	" "
17	" "	54	..	1	..	..	..	..	1	The cystitis was of twenty years' duration; at the operation the hypertrophied median portion of the prostate was removed. Patient lived for 39 days, greatly relieved. Death from diarrhœa. At autopsy extensive kidney disease found.	" "

No.	Surgeon.	Age of patient.	Mode of Operation.				Result.				Remarks.	Reference.
			Median.	Lateral.	Bilateral.	Wound open.	Cured.	Relieved.	Failed.	Died.		
18..	Briddon, N. Y.	..	..	1	..	..	..	..	..	1	Death on the eighth day; extensive kidney disease.	Personal communication.
19..	" "	..	..	1	..	..	..	..	..	1	Death on eighth day; kidneys much diseased.	" "
20..	Van Buren and Keyes, N. Y.	50	..	1	..	5 weeks.	1	..	..	..	So much relieved as to be a cure, but this not so much due to the cystotomy as to the removal of the hypertrophied third lobe, 1875.	" "
21..	Van Buren and Keyes, N. Y.	19	..	1	..	1 month.	..	..	1	..	The patient was relieved while the bladder was open, but symptoms returned in full severity when wound closed. Death, one year later, showed vesical irritability to be due to tubercular (?) kidney.	" "
22..	Hutchison, Brooklyn.	70	..	..	1	..	..	..	..	1	Death from exhaustion one week later.	" "
23..	Little, N. Y.	40	..	1	..	2 weeks.	1	..	..	..	Cystitis had existed for two years; patient confined to bed for two months prior to operation; subsequently so well as to be able to go to Europe.	" "
24..	" "	13	..	1	..	..	..	..	1	..	Owing to incision being too small, patient never lost control of urination. He was greatly relieved, though symptoms soon returned. Two years after he wished the operation again performed, but parents objected.	" "
25..	L. A. Stimson, N. Y.	38	..	1	..	Never closed. Vesical control in 2 weeks.	..	..	1	..	Relief temporary; four days after first incision a second was made, as bladder was not well drained; would not bear tube in wound; patient subsequently underwent rectal drainage without benefit, 1877.	" "
26..	Howe, N. Y.	?	1	..	..	Fistula permanent	..	1	..	..	The cystitis was from paraplegia. After the prostate was reached it was stretched to a diameter of one inch by a bivalved speculum and by Molesworth's hydrostatic dilator. Patient very much relieved.	" "
27..	" "	?	1	..	..	Fistula permanent.	1	..	..	..	Seen six months later at work and well; cystitis had lasted twelve months. Two fingers were introduced into the bladder at the operation.	N. Y. Jour. Med., p. 385, 1879.
28..	" "	..	1	..	..	..	..	..	..	1	Death from uræmia three days later.	Personal communication.
29..	" "	..	1	..	..	Fistula unhealed when patient left hospital.	..	1	..	..	In addition to the stretching with a speculum, which Dr. Howe resorts to in all of his cases, in this there was also slight nicking of the prostate.	" "
30..	" "	?	1	..	..	?	..	..	..	..	Died several months later with phthisis.	" "
31..	Post, N. Y.	33	..	1	..	3½ months.	1	..	..	..	Cystitis and atony of bladder due to stricture; urethrotomy, subsequently cystotomy conjoined with actual cautery over pubes.	Trans. N. Y. Surgical Society, May 11, 1880.
32..	Bares, Mass.	41	..	1	..	..	1	..	..	..	Cystitis of six years' duration. Tube worn for eighteen months.	Boston Med. and Surg. Jour., p. 797, 1879.

No.	Surgeon.	Age of patient.	Median Cystotomy.	Lateral Cystotomy.	Wound open.	Bilateral Cystotomy.	Result.	Reference.
34	Owens, Chicago.	30		1	..	1	Died five months later from Pericesal surgical kidney	Personal communication
35	" "	21		1	..	1	From abscess of the kidney one month later	" "
36	Cummings, Va.	68	1		..	1	Finger passed several times into the bladder. Patient seen four months later, and was then well.	Rich and Louisville Med. Jour., Jan., 1879.
37	Jones, Toledo.	40		1	2 weeks.	1	Operation performed in 1871, patient seen three or four years afterward, was healthy and robust. The cystitis had lasted three or four years.	Personal communication.
38	" "	48	..	1	16 days.	1	Had had cystitis for two years prior to operation, remained well after operation for one year, when cystitis returned. He died later from cancer of bladder.	" "
39	Parona, Italy.	22	..	.. 1	1 month.	1	In two months the patient was entirely well.	Sebaux. These de Paris, 1876; also Rivista Clinica Bologna, 1873.
40	Vermutiera, France.	70	..	1	..	1	Free from pain since operation	Sebaux, 1876.
41	Medoro, Italy.	?	..	1	..	1	.....	Rivista Clinica Bologna, 1873.
42	Teevan, London.	..	1	....	..	1	Prostate also cut; the patient's cystitis continued after a successful lithotrity.	Lancet, vol. i., 478, 1879.
43	Bryant, London	..	..	*1 ..	..	1	.....	" "
44	" "	..	..	1 ..	..	1	.....	" "
45	" "	..	..	1 ..	..	1	.....	" "
46	" "	..	..	1 ..	..	.....	1 From kidney complications.	" "
47	" "	..	..	1 ..	..	.....	1 " " "	" "
						.....	1 " " "	" "

By the median section there were 10 cases, of which 6 were cured, 3 relieved, and 1 died.
" lateral section " " 32 " " 13 " 4 " 4 failed, and 11 died.
" bilateral section " " 5 " " 4 " and 1 died.

* In 6 cases, with 3 recoveries and 3 deaths, the mode of operation is not stated, but from Mr. Bryant's remarks elsewhere it is inferred that the lateral section was employed.

ON THE USE OF CERIUM OXALATE FOR THE RELIEF OF COUGH.

By HOBART CHEESMAN, M.D.,

NEW YORK.

(Read before a Stated Meeting of the Medical Society of the County of New York, April 26, 1880.)

MR. PRESIDENT AND GENTLEMEN:—By the request of the President of this Society I have the honor to read before you the following paper:

My notes on the use of cerium oxalate for the relief of cough were taken last autumn, and they, together with a statement of my conclusions and some other portions of this paper, were placed last January at the disposal of Dr. Andrew H. Smith, at his request, to form the basis of a more extended investigation, the results to be reported to the Therapeutical Society of this city. The conclusions reached by this investigation, and adopted by the Committee of that Society, and read at a recent meeting, were favorable, and corroborated the statement of my own, accompanying the notes which I furnished the committee, without any important modification.

The weight of authority thus given the subject increases my confidence in now presenting it.

The importance of allevinating cough in phthisis and in other diseases is recognized. Watson says: "Cough is usually present, more or less, during all the stages of phthisis, and it is often that symptom which most distresses and harasses both the patient and his family," and, it might well be added, the physician. Hühle, in "Ziemssen," remarks that in many cases "it is the chief cause of annoyance throughout the disease. The violent efforts exhaust the invalid, induce perspiration, disturb sleep, and excite vomiting; they also inflict direct injury, and unless moderated by treatment, they may hasten the course of the disease." The constant unrest caused by frequent and violent paroxysms of coughing, the exhausting efforts attending them, and the direct injury caused to the delicate diseased organs, present formidable obstacles not only to a possible cure, but are potent, active factors in hastening the fatal issue.

The demand is for a medicine which can be relied upon with reasonable certainty to relieve cough, which will not destroy appetite, derange digestion, impair nutrition, and produce nervous prostration, but which will allay gastric disturbances and aid digestion; one which will not clog the lungs nor lose its virtues by prolonged use. This is the ideal cough medicine, and its discovery is likely to afford employ-

ment to the enterprising therapeutist of the future.

Sir James Y. Simpson introduced the use of oxalate of cerium in the vomiting of pregnancy in 1859. Dr. J. S. Ramskill, Clinical Lecturer on Nervous Diseases in the London Hospital, in the *Medical Times and Gazette*, of January 4, 1862, speaks favorably of its use in cases of epilepsy, having as an aura some gastric commotion, and states his opinion that "it acts as a sedative and conserver of nervous force; the sedative action being exerted upon the periphery of the pneumogastric, conveys the influence to the grand centre of excito-motor action, the medulla, and thus not only prevents an impending attack, but diminishes the chances of future fits by lessening the morbid excito-motor sensibility."

A case of vomiting in laryngeal phthisis is reported as successfully treated in the next number of the same journal.

In the *American Journal of Medical Sciences*, of October, 1868, its use was first noticed in the vomiting of phthisis, hysteria, and in various dyspeptic conditions.

Nothing conclusive appears to have been published concerning its physiological action. Some, on account of its difficult solubility, suppose it to act mechanically only on the alimentary mucous tract.

Dr. Charles K. Mills, of Philadelphia, in the *Philadelphia Medical Times*, of December 25, 1875, and of January 8, 1876, gives a description of the drug and analyses of various of its preparations. The commercial preparations were found to contain a little more than one part of oxalates of lanthanum and didymium to two of oxalate of cerium. But from therapeutical tests made with them in comparison with others made with chemically pure cerium oxalate, the mixed salts seemed, if anything, more efficient than the simple cerium. The lanthanum and didymium salts are more soluble than the cerium, and, therefore, it has been suggested that the therapeutical virtues of the commercial drug are due to these substances. There were preparations which seemed to have no therapeutical value, and it was thought that this might be due to the presence of irritating foreign matter, such as silica, which was found in some of the preparations examined. The chemically pure cerium oxalate, when precipitated from a neutral solution, is an impalpable powder, but when precipitated from an acid solution and the commercial preparations, are coarser; they are gritty and granular. The color may be nearly white or faint lavender or salmon.

In the *Practitioner* of April, 1878, Thomas Clark, L.B.C.P., etc., in a short article first recommended cerium oxalate in cases of chronic cough and shortness of breathing, and reported two or three cases of phthisis in which it was used with marked success. Mr. Clark stated as his opinion, that the medical properties of the drug are only sedative. The only symptom which he observed from its use was a slight dryness of the mouth. His rule was to give five grains in the morning, half an hour before rising, and he claimed that its effects lasted twenty-four hours after each dose.

In the MEDICAL RECORD of May 25, 1878, Dr. James G. La Roe gave his evidence in support of Mr. Clark, but thought the dose too large, and cited the case of a lady to whom he had given five grains in the morning, with the effect of producing a condition of stupor lasting all day.

Dr. Frank Alport, of Ill., in the MEDICAL RECORD of Jan. 18, 1879, reported its successful use in chronic lung and laryngeal cough. Dr. Alport had noticed no ill effects from five-grain doses, except when given to small children. One lady to whom he gave seven grains was moderately affected with symptoms of a kind similar to those noticed by Dr. La Roe.

Dr. Benjamin Morjé, of New York, in the MEDICAL RECORD of July 14, 1879, reports having employed it in nine cases of pertussis with marked relief to the cough.

With the approval of the attending physicians of St. Luke's Hospital, I employed it in the cough of phthisis, and in various other coughs during the greater part of my term as resident physician, from July 1st to November 1, 1879. Three preparations were, at different periods, used. That of Charles Pfiser, of New York, for about two months; another American preparation for two or three weeks; and during the remaining two or three weeks E. Merck's, of Darmstadt. The first gave satisfactory results, the second did not, the third did, but was not used for a sufficient time to test it thoroughly. It may be important to know that the second wholesales at a little more than half the price of either of the others, and, therefore, is more apt to be sold by druggists. The most expensive wholesales for less than four dollars per pound.

In the course of the observations the oxalate was often intermitted for a time, to observe the effect of its withdrawal, and for other reasons, and then resumed. Thus it happened that sixty-nine distinct trials of it were made, although the number of patients was only twenty-eight. No trial unless of more than a week's duration is counted; the majority of the trials lasted two or three weeks. The reports of patients were not relied upon unless supported by the testimony of nurses, or by my own observations, and the results were noted at the time.

During the latter part of July the drug was employed in a few bad cases with such marked success that in the early part of August the use of all other sedatives, opiates included, and cough medicines was abandoned, and from that time until November 1st, with rare exceptions, the oxalate of cerium alone was used as a cough medicine among a daily average of about twenty-five phthisis patients, representing all phases and stages of the disease. There were stubborn cases in which other remedies were at times substituted, but in most of them the oxalate was finally adhered to as the most satisfactory. The general treatment was kept up as usual in all cases. The oxalate was generally given in dry powder simple upon the tongue, and was most successful when so administered. It was preferred to give it on an empty stomach, and from one to three large doses daily rather than an equal quantity in small and frequent doses. The initial dose was usually five grains at bed-time, or in the morning on waking, or both; the doses being increased from this, unless relief was obtained, to ten grains or more, three times a day. Occasionally large doses allayed cough at once when smaller ones had produced no effect. Sometimes the cough, after being for a time relieved by small doses, returned, and was again relieved by increasing the doses. The drug lost its effects altogether, after a time, in a few cases; in many its effects did not wear out, at least during the time it was found necessary to employ it. Its benefits were prolonged by reducing or stopping the doses as soon as relief came, and increasing or resuming them on return of the cough. In several cases, after one or more failures, a subsequent trial with the same patient was successful.

The wards were evidently quieter while those requiring cough mixt. were taking the oxalate than at other times. The remedy was on several occasions entirely interrupted in the wards for a few days, and then resumed as each case came to require it. In about twenty-four or forty-eight hours after stopping it, the noise and complaining would increase.

The best effects were noticed in the early stages of phthisis, or in chronic bronchitis; but a harassing cough, with profuse expectoration in the third stage, was in several cases relieved, the cavities being then emptied without violent coughing or great effort.

The drug was not thoroughly tested in acute cough, but my impression is that it is less efficient in acute than in chronic cough, whether pulmonary or laryngeal. Nausea and vomiting became rare among the phthisis patients during the time it was used. It never disturbed the stomach, but, on the contrary, appetite and digestion often were speedily improved.

In dyspnœa having an asthmatic element, it doubtless affords more or less relief. In dyspnœa due to loss of normal lung substance, it can give the relief only which is procured by checking the coughing; during coughing the legitimate functions of the still healthy portions of the lungs are more or less arrested.

Frequently sleep was restored, and occasionally considerable drowsiness attended its use for a time, but these effects were not attributed to any narcotic property of the drug, but to the relief of the cough, which allowed the patient to make up for previous loss of sleep.

The patients taking the oxalate were weighed weekly, and several very soon showed marked gain.

No dangerous symptoms were ever observed attributable to the drug. The largest dose given was twenty grains. This dose was never repeated the same day, but was given, in a few instances, to patients taking ten grains twice at other periods of the day. No complaint was ever voluntarily made of its causing dryness of the mouth, but several of the patients questioned on this point admitted that it produced this symptom at first, but declared that after taking it a few days they ceased to notice it. There were now and then complaints of its producing a sensation of tightness in the chest, and of its drying up the expectoration, but complaining of these symptoms was common when the oxalate was not being used.

The majority of the trials were upon males. Of the sixty-nine made, thirty-nine were markedly successful, nineteen more or less so, and eleven failures. Of the failures the majority were in the third stage of the disease, and eight of them were trials in which the Philadelphia oxalate was used.

Time and patience do not warrant reading all the cases; therefore a few have been selected, after condensing them, to show the method employed in the tests and how the notes are composed, and to illustrate the different degrees of success and of failure, and the various conclusions, so far as possible, with a few cases. Details of previous history, of physical examination, and other particulars, are fully recorded in every case, but for brevity will be omitted, as there is small probability of any important errors of diagnosis in hospital phthisis patients.

Case I.—American, æt. 27, carpenter; admitted July 14, 1879. Has coughed and failed in health for six months. *Diagnosis:* consolidation at the right apex, and thickened and adherent pleuræ at the right base. The usual phthisis treatment ordered.

July 26th. Patient has a severe, hoarse, hollow-sounding cough, with scanty expectoration. The cough has been troublesome for six months. Since admission different cough remedies have been tried, with only temporary relief. Other cough medicines now stopped. To have five grains of cerium oxalate on waking every morning and at bed-time every night, in dry powder on the tongue. August 1st. Patient reports the cough greatly relieved since taking the powders. 4th. Coughs very little; oxalate stopped. 15th. Complains of dry, teasing cough; oxalate resumed. 18th. Oxalate stopped by mistake; resumed again on August 20th. 22d. Has not complained of cough for two days. 25th. On questioning the patient reports the cough less frequent and severe, but tighter. 26th. Reports no coughing of consequence last night, and says that this is a great improvement on a few nights ago. 27th. Complains of coughing more yesterday and last night; oxalate increased to ten grains night and morning. 31st. No more complaint of coughing; patient is making rapid general improvement. Sept. 2d. Same report; oxalate reduced to one dose nightly. 8th. No more coughing; gained three and a half pounds in the past week. 12th. Coughs no more; complains of sore throat; laryngoscope shows tubercular laryngitis. 16th. Complains of coughing for the first time in two or three weeks, coughs during the day-time; to have ten grains of oxalate every morning. 18th. No coughing; stop oxalate. 25th. Discharged. This is a fair sample of a successful case.

Case II.—German, æt. 34, wheelwright; admitted July 29, 1879. Cough almost constantly troublesome for four years; feet and legs are now swollen, dyspnœa severe, face and extremities constantly blue, and the veins of the whole surface of the body are swollen. Examination reveals fibrous phthisis in the third stage.

Patient has a hard and harassing cough, with not very profuse muco-purulent expectoration. Tonics and a cough medicine of morphine, hydrocyanic acid, and camphor-water ordered. This cough medicine was stopped August 1st, and five grains of cerium oxalate ordered night and morning. Aug. 6th. Cough better. 18th. Patient has not complained of coughing since the last date. 24th. No coughing, but very distressing dyspnœa; gradually dying from suffocation. 25th. The night nurse reports no coughing all night. 26th. Same report. 28th. Died.

Case III.—German, æt. 38, housewife; admitted July 26, 1879. Coughed since last autumn and failed in general health. Examination of the chest reveals general bronchitis and phthisis in the first stage at the right apex.

Aug. 23d. Complains a great deal of coughing at night on going to bed, and says that she coughs at frequent intervals during the day, and complains that she also has vomiting in the morning. To have five grains of oxalate on waking every morning (first dose Aug. 24th). 25th. No coughing nor nausea this morning; coughed last night as usual on going to bed. 26th. Coughs much less. 28th, P.M. Coughs more than usual to-day. To have ten grains of oxalate at night in addition to the morning dose. 29th. Coughed less last night. 30th. Some coughing still. Morning dose of oxalate increased to ten grains. September 1st. No coughing. 2d. Same. Stop morning dose of oxalate. 8th. No more nausea nor cough; marked general improvement. Discharged.

Case IV.—Irish, æt. 28, single, domestic, admitted June 5, 1879. Patient has had several attacks of hæmoptysis, and now has considerable muco-purulent expectoration and night-sweats; family phthisical. *Diagnosis:* Second stage of phthisis.

August 23d. For about three weeks has complained daily of nausea or vomiting in the morning, also of coughing at this and other periods of the twenty-four hours. To have five grains of oxalate of cerium every night at bedtime. (First dose, August 23d.) 24th, A.M. No nausea this morning. 25th. No retching this morning. By mistake has had a small dose of Magendie on awaking for two mornings, which is now to be omitted. Patient still coughs some. 27th. No nausea, but the cough is not much better. Oxalate increased to ten grains every night before supper, in addition to the morning dose. 29th. Coughing and vomiting this morning. 31st. No coughing nor retching. September 1st. Complains again of coughing. Oxalate stopped. Magendie resumed. 14th. Failing; vomiting and coughing continue. Stop Magendie; give ten grains of oxalate night and morning. 15th. Less coughing; looks better this morning. 20th. No more nausea nor coughing. 21st. Discharged. This case illustrates a failure, for the second trial, although favorable, was too brief to be valuable.

Case V.—Colored, æt. 23, sexton, admitted August 20, 1879. Family phthisical, has coughed for six months and failed in general health. *Diagnosis:* Second stage of phthisis at both apices. August 22d. Has been kept awake at night since admission by almost incessant coughing. Patient states that before admission for several weeks his sleep had been badly broken. To have five grains of oxalate every night at bedtime and every morning early. 25th. Night-nurse reports that the patient coughed none last night. 26th. Patient reports that his cough is wonderfully relieved, and that he got seven hours of quiet sleep both last night and night before last. Laryngoscope reveals laryngeal phthisis. 27th. Not disturbed last night. 28th. No coughing. 29th. Coughed at one and at four o'clock last night. 31st. No more coughing of consequence; marked general improvement; sleeps well; stomach and bowels in better order. September 2d. Same. 10th. Caught a severe cold last night and is coughing some. 12th. Cough not troublesome. 18th. Same; stop oxalate. 25th. The cough has returned; oxalate resumed.

To omit further particulars, the oxalate was thoroughly tested several times during the next five weeks, but failed every time to give much, if any relief. At this period the expectoration became more abundant, although it was never free. This is the most marked case showing unlike results at different trials.

Case VI.—American, æt. 22, housewife, admitted May 10, 1879. Has coughed and failed in health since last autumn; family phthisical. May 15th. Ordered seven minims of Magendie's solution every night. July 9th. Ordered fifteen drops of tincture of opium every four hours for cough. In addition to this, patient required extra dosing nightly. August 12th. To have five grains of cerium oxalate night and morning. 25th. Less complaint of cough lately. 26th. Opium to be entirely omitted, night dose of oxalate to be increased to ten grains, and to be given before supper. Cough is worse to-day. 27th. Badly disturbed last night by coughing. 28th. Complains, but it is suspected to be due to stopping the opium. 29th. Slept well and did not cough much last night. 31st. Coughed none at all last night. September 1st. Same report. 2d. Same report. 8th. Complained for two days of coughing at night; to have a dose of oxalate before dinner. The expectoration is profuse. 12th. Slept well, and has not been disturbed for two nights by cough. 13th. No coughing. 18th. No coughing for a number of days; stop oxalate. 20th. Complains of coughing. 21st, A.M. Same complaint; does not sleep well. Ordered ten grains of oxalate night and morning. The cough is hoarse and loud. 22d. Reports that her cough was much softer and less troublesome last night; expectoration abundant. 26th. Cough troublesome in the afternoon only; to have a dose of oxalate every day before dinner. 29th. No more coughing; stop oxalate. October 2d, A.M. Complains of coughing; coughed badly for past two nights. 3d. Still complaining; rested badly last night; to have five grains of oxalate night and morning. 4th. Rested better and coughed less last night. 26th. No cough of consequence. 30th. Same report. This case illustrates the intermission of the oxalate to observe the effect of its withdrawal.

Case VII.—American, æt. 30, broker, admitted August 28, 1879. Lungs have given trouble for two or three years, more during the past year, and his health has failed much. For several weeks prior to admission had suffered greatly from cough and sleeplessness, and failed to get relief from large and increasing doses of opiates. Patient looks haggard and exhausted. *Diagnosis:* Third stage of fibrous phthisis; no opiates given after admission.

August 29th. A great deal of coughing at night, and considerable during the day. September 8th. Severe and frequent paroxysms of coughing. 9th. Complains of constant tickling in the throat and disturbance at night from coughing; to have ten grains of oxalate every night at bedtime. (Various anodynes and sedatives have been given, but are now to be omitted.) 11th. Some coughing to-day; give a dose of oxalate on awaking every morning. 12th. Has slept well for two nights; has no tickling in the throat nor troublesome cough. 13th. Cough not troublesome. 22d. Same report; stop oxalate. 23d, P.M. Coughed hard last night; to-day was observed sitting on the edge of the bed and coughing violently; cough loud and hollow; ten grains of oxalate to be given three times a day. 24th. Rested better last night. 25th. Slept well last night; cough relieved. 26th. Same report. 29th. Same; reduce oxalate to five grains twice a day. Oct. 3d. Coughed for two days some. 8th. Rests first-rate. 12th. Coughing all night; oxalate increased to ten grains. (The Philadelphia oxalate is being used.) 13th. Vomiting, but less coughing; Merck's oxalate substituted for the Philadelphia. 18th. No more coughing nor nausea.

Patient declares that the powders are not unpleasant to take. For the first few days they caused dryness of the mouth, but this soon ceased to be noticed.

30th. Very little coughing; no more nausea.

This case illustrates the experience of several cases with the Philadelphia oxalate, although not so decided as some of the others.

Case VIII.—American, æt. 26, meat carver, admitted September 29, 1879. Patient has coughed a year, has moderately profuse muco-purulent expectoration, and some dyspnœa; looks haggard.

October 3d. Has had a very harassing cough for a long time, worse than usual during the past two nights; ordered five grains of oxalate every night at bedtime. 5th. No better; increase oxalate to ten grains. 6th. Rested better last night. 7th. No better. 8th. No better. 10th. Same report; is taking the Philadelphia oxalate; Merck's to be substituted. 11th. No better; to have a morning dose of oxalate. 12th. Not much better. 14th. Same; oxalate stopped; Dover's powder ordered. 15th. Rested better. Even-

ing. Vomiting, Dover's powders stopped; ordered two grains of Merck's oxalate twice a day. 16th. Rested badly last night; oxalate increased to ten grains at night and five morning and noon. 17th. Coughed hard after midnight, morning dose of oxalate increased to ten grains. 19th. No more complaint of coughing, volunteers the statement that he was not disturbed all last night. 20th. Relief from cough has been marked since the oxalate was last increased.

In conclusion, I will quote a synopsis of the cases, in addition to my own, presented to the Therapeutical Society, and the conclusion adopted by the committee:

Of phthisis.—Five cases from Dr. Andrew H. Smith's private practice; one permanently relieved, three for a time, and one not at all. Fourteen from the records of St. Luke's Hospital, with various degrees of benefit in twelve, and failure in two. Dr. Smith authorizes the statement that in his experience he has found the oxalate of cerium beneficial in most cases of cough; a failure in a few.

Dr. C. E. Billington reported nine cases, with benefit in seven, permanent in only two of them. Five-grain doses only were given twice a day.

Dr. F. A. Castle, two cases, both favorable. One of them was relieved while taking one preparation of the drug, but the cough returned on changing to another preparation, and was again relieved when the former was resumed.

Dr. George Bayles, seven cases. He remarks: "Positive relief occurred in four of these, and in three the remedy failed every time it was tried." The maximum dose given was ten grains.

Dr. J. R. Leaming, five cases; four successful, one failure. Dr. Leaming states that other cases impress him that this remedy is, perhaps, the most valuable that he has used, inasmuch as no unpleasant consequences follow. Indeed, he says, the digestion is generally improved notably; but it seems to have less effect on the cough when the expectoration is free and abundant.

Presbyterian Hospital, three cases. Temporary relief in two, none in the third.

The cases from the Presbyterian Hospital were reported by Dr. Little for Dr. A. Hadden. Dr. Hadden remarked before the Society, in regard to them, that he did not consider the first a fair test, as the patient was suffering from delirium and other serious symptoms, probably from having been suddenly deprived of large dosing with opium; that the second was a case of fibrous phthisis in which the relief from cough afforded by the use of the oxalate was marked. The third was not benefited, but the trials were not thoroughly carried out, as his term of service was about expiring.

Of chronic bronchitis.—Dr. Bayles reported three cases, all permanently relieved. Dr. Bayles declared that every case of cough in chronic bronchitis treated by him with the oxalate had been "markedly and permanently relieved."

Of acute bronchitis.—Dr. Bayles furnished two, relieved, and remarked that several in which the cough was treated with the oxalate were not relieved.

Dr. A. E. M. Purdy, two cases of acute bronchitis, to one of whom four-grain doses of the oxalate were at first prescribed every four hours, "with little, if any benefit, but afterward ten-grain doses twice a day, no other medicine being given, were followed by immediate improvement, the cough ceasing almost at once." The relief was permanent. The other case was treated with equal success with ten-grain doses. Dr. Purdy had used the remedy in several other cases of which he had taken no notes, in most of them with favorable results.

Dr. Bayles reported one case of chronic laryngeal cough, of a croupy quality, "entirely and permanently relieved," three cases of cough in dyspepsia permanently relieved, one of cough in empyæma, very distressing. The cough "immediately subsided under the use of the oxalate," after which the pus, which was being discharged through the lungs, was expectorated with less effort.

A case of cough with asthmatic paroxysms, by Dr. Billington, with favorable result.

Two cases of spasmodic asthma and one of senile asthma, by Dr. Bayles, relieved; also three cases of pertussis relieved. He stated that several other cases of pertussis treated with oxalate were not benefited. Two cases of bad cough in rubeola relieved; one of chronic cough from gastric irritation, with the result of "putting a period to the cough."

Dr. D. M. Cammon reported a case of a lady with a cough without any determinable lesion and no expectoration, relieved on the second day. The use of the drug was continued five days and then stopped, after which the cough gradually returned.

The following are the conclusions adopted by the committee in their report.

"1. Cerium oxalate may be given safely in doses of ten grains or more three times a day, for many days in succession."

"2. The only symptom noted from such doses is a slight dryness of the mouth for the first few days.

"3. It is probably more efficient when taken dry upon the tongue."

"4. Its effects are not fully apparent until it has been taken two or three days and continued about the same length of time after its use is suspended."

"5. For chronic cough it is best taken on an empty stomach early in the morning and at bedtime, with other doses during the day, if required; the initial dose for an adult being five grains."

"6. It is in the majority of cases an efficient cough medicine, at least for a considerable time, and it is very valuable as an alternate with other drugs used for that purpose."

"7. It does not disturb the stomach as do opiates and most other cough remedies; but on the contrary it tends to relieve nausea and to improve digestion."

"8. The different preparations on the market are not of equal value, and when success is not obtained with one, another should be substituted."

THE MEDICAL CHARITIES of Manchester, England, have received a bequest of $200,000 from the late Mr. Thomas Wrigley.

THE CELEBRATED CASE OF BAGOT VS. BAGOT, which hinges upon the question of whether a man with advanced locomotor ataxia could procreate, has been decided by a compromise. Most of the medical evidence was to the effect that procreation was very unlikely or impossible after the disease was well developed.

A NEW METHOD OF DIAGNOSING RENAL CALCULUS with pelvic abscess is suggested and has been tried by Mr. Arthur E. Barker. It consists in passing a fine aspirator-needle into the side, half way between the crest of the ilium and the lower rib, directing the point toward the abdominal aspect of the spinal column and a little upward.

Progress of Medical Science.

Trichinosis on Board the "Cornwall."—On September 23, 1879, seven of the boys on board the British reform school-ship "Cornwall" were reported sick, all the ship's crew having previously enjoyed good health. Additional cases occurred until October 23d, when there were forty-three on the sick list. The symptoms were those of a continued fever, viz., disturbance of digestion, marked diarrhœa, hemorrhages from the bowels, and petechial spots of a rose color on the abdomen. Of the forty-three affected with the disease, one died on the eighteenth day after being attacked, seventeen were seriously ill, and twenty-five only moderately so. An investigation of the causes of the outbreak by Mr. Power, local government inspector, failed to show that it was one of continued or enteric fever. On examining into the character and quality of the food furnished to the boys, it was ascertained that it was different and cooked separately from that of the officers, and also that the latter did not suffer from the disease. On further inquiry, it was found that salt pork was given to the boys usually on Mondays, and it was thought that this might accounnt for the occurrence of fresh cases on particular Tuesdays, but further investigation in this direction only met with negative results. A post-mortem examination of the patient who died, and who presented all the symptoms of continued fever, was then made. The microscope failed to show any of the lesions seen in enteric fever, but, on the contrary, on examining the abdominal muscles, trichinas could be seen rather abundant in number. The discovery of the parasite finally settled the point as to diagnosis, both in this and the remaining cases, as all were similarly affected. As points of interest in the epidemic were the corroboration of views that are pretty generally held, viz., the close resemblance to one of enteric fever, and the difficulty of arriving at a precise diagnosis, even when the cause was suspected. It is to be hoped that the subject of trichinosis, which is even yet quite imperfectly understood, and the question of a careful inspection of American pork, will receive renewed attention.—*British Med. Jour.*, April 3, 1880.

The Hysterical Element in Orthopœdic Surgery.—Dr. Shaffer's article on the above subject is a valuable contribution to a subject about which the general practitioner is very slightly conversant. The first case reported is that of a girl, aged fourteen, who had always enjoyed good health. About five years previous to her visit to Dr. Shaffer she fell from a wagon, the lower part of her spine being hurt by the fall, a black and blue spot developing near the last lumbar vertebra; in a few days she recovered. When about twelve years of age she commenced exercising on horseback, and after a time complained of pain in the back, but soon recovered under treatment. About three months later she was thrown over her horse's head, when the spine was again injured. This time she became very nervous and irritable, complained of a tired feeling in the back on the least exertion, and also of tenderness over the spine. As a distant relative had had Pott's disease, the mother associated this disease with the affection existing in her daughter. The diagnosis of caries of the last lumbar vertebra was made by her physician, and she was treated accordingly, with an increase in the symptoms. Shaffer, on examination, found that there were several tender spots in the vicinity of the twelfth dorsal and first lumbar vertebra, but that there was more pain produced by slight irritation of the clothes than when deep pressure was made. There was some deformity, which disappeared when the patient was lying down; the spine was normally flexible, and the psoas and iliac muscles offered no resistance when put on the stretch, with pelvis firmly held, and the patient in a recumbent attitude. The diagnosis arrived at was neuromimesis, chiefly because of the superficial character of the pain, and the normal movements of the spine. In another patient there had been concussion of the spine, but previous to this she had complained of pains in the back. The spine presented an apparent curvature, both laterally and antero-posteriorly. On examination it was found that the deformity disappeared when in a recumbent position. Several points of tenderness existed over the spinous process; the psoas muscles were not contracted, and there was no muscular rigidity. In this the diagnosis had been Pott's disease, but Shaffer believes it also to have been neuromimesis for the following reasons: absence of rigidity of the muscles; also of the characteristic attitude and gait seen in Pott's disease, and nocturnal cry, both of which were wanting in this case; also in the true form of the disease the pain would be referred to the region where the spinal nerves from the diseased part runs. Other instances of these affections are recorded, and the following conclusions are arrived at by the writer, and given here in a condensed form: There is atrophy due to the lesion in chronic ostoitis, and muscular spasm, which disappears when the patient is under the influence of an anæsthetic, but which is not affected by the administration of opium or chloral. There is also reduction of the faradic contractility. In emotional contractions, the muscular rigidity, which is variable, disappears under the influences of anæsthetics, and when asleep, and there is normal reaction to the faradic current. The atrophy is only functional.—*Archives of Medicine*, April, 1880.

Estimation of Uric Acid by its Reducing Action upon the Ammoniated Cupric Test.—The accurate estimation of the amount of uric acid in the urine is often necessary in order to intelligently treat diseases complicated with a uric acid diathesis. Of the various methods hitherto employed, all either lack in precision, or cannot be used with facility. Dr. Pavy's mode of procedure, which is a simple one, depends upon the reducing action of uric acid in the ammoniated cupric acid, as used in the quantitative determination of sugar, and which was reported in the "Proceedings of the Royal Society," vol. xxviii., p. 260, and vol. xxix., p. 272. To determine the amount of uric acid in a given specimen of urine, its reducing power on the ammoniated copper is first ascertained, as a small quantity of sugar is always present in healthy urine. After this the uric acid is thrown down by means of acetate of lead, and the reducing power of the sugar on the test is then determined. The difference between the two results will give the amount of uric acid present, as it has been found by careful experiments that one atom of uric acid reduces three of oxide of copper.—*Lancet*, April 3, 1880.

The Oleomargarine Bill, requiring tubs of oleomargarine to be labelled in large, plain letters, has passed the Assembly and Senate.

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THE WORK OF THE SECTIONS OF THE AMERICAN MEDICAL ASSOCIATION.

Those who take an interest in the American Medical Association, and who were present at the recent meeting in New York, must have been struck with the necessity for some changes in the methods of its management. Not that its organization does not in the main fulfil all requirements, but that its rules and regulations are either not sufficiently understood, or purposely ignored. Perhaps these shortcomings are in part due to the fact that, with the exception of the permanent secretary and the members of the judicial council, no sets of officers hold their position from one year to the other. The responsibility of office extends over one session only, allowing neither time nor opportunity for the incumbents to become acquainted with the details of their duties. This state of affairs is more particularly noticeable in connection with the usual management of the different sections. In these organizations a chairman and secretary are appointed the year previous to the time when they are to serve; generally they are from different parts of the country, and meet for the first time when the first session of the section is called to order. Their only guide is the programme of the Committee of Arrangements, and the consequence is that no selection as to the character of the paper or the time for reading it can be made by them. It seems sufficient that a member shall merely offer a paper, when it must be presented as a matter of course, and whether good or bad it must be referred for publication in the Transactions. We submit that this is all wrong, and until it is made right by some better regulation the scientific value of the proceedings of the Association will always be below par.

Some measures should be taken to select the proper papers before their authors are allowed to read them at the meetings of the different sections. There should be a committee of selection for each section whose duty it should be not only to examine all papers or abstracts sent to them before the meeting, but to do the same to all such communications which are delayed to the actual time of meeting. By such means, and with comparatively little trouble, it could be ascertained not only whether any paper was worthy of being presented to the section, but whether it had ever been read or published before. This plan of selection is very satisfactorily carried out by the business committees of the different State societies, who do their work in the intervals of the meetings. Another good reason for these preliminary examinations of papers is the prevention of the ultimate appearance in the volume of Transactions of everything presented, whether read or not before the sections. It has become the custom, in the crowd of business, to read many papers by title only and then refer them to the Committee of Publication. The Committee of Publication, not caring, as a rule, even if it had the power to do so, to ignore the tacit recommendations of the section, gives all such papers the benefit of a doubt as to fitness for publication, and they appear in due form in the yearly volume.

When we stop to reflect how such privileges of publication, under the circumstances mentioned, may be abused, we should be ready to listen to any argument in favor of a preliminary examination, by a suitable committee, from each section of every paper offered. A neglect of such precautions was strikingly manifest during the recent meeting. Not only was second-rate papers allowed to be read in extenso, in many instances occupying nearly an hour at a time, but others which were not as good have a chance of appearing in the Transactions merely because they were offered, and no time left to read them, while still others which were accepted were really second-hand, having been read before other societies. There is a rule of the Association which forbids the reception of second-hand material, but it was not enforced in any of the sections.

Bearing upon the general question of increasing the efficiency of the sections, one or two additional points offer themselves for consideration. In the first place, in order to insure the presentation of valuable material and abundance of it at the different meetings, it is quite necessary that authors shall not be restricted, in the publication of their papers, to the volume of Transactions. If it were otherwise, first-class writers all over the country would gladly come forward and contribute. As it is, however, they object to having their works buried in the yearly volume. In the second place, there should be full and accurate reports of the discussions before the different sections. Not only would this tend to preserve a great deal of valuable material which would otherwise be utterly lost, but it would encourage the members in presenting their views. During the last meeting no provisions whatever were made by the

Association for such reports, and the accounts of the discussions would have gone by default, except for their publication, independently, by the MEDICAL RECORD. There is no reason why the Association should not do as much in its own interests, and thus afford the right sort of encouragement to those of its members who are ready to work for the increase of its usefulness, and for the extension of its scientific influence.

In conclusion, it appears proper to suggest that some alterations of the by-laws should be made, to render it possible for each section to have a permanent secretary, who shall be under a sufficient salary to pay his travelling expenses, who shall be present at every meeting, and who shall be expected to understand such details of the machinery of said section as shall insure a full compliance on the part of every member with its rules of government.

THE ILLINOIS STATE SOCIETY.

THE Illinois State Medical Society has held a three days' session, as shown by our full report elsewhere. The meeting was a fairly profitable one scientifically, a goodly number of papers being read, some of them embodying, in certain directions, original investigation. The Society amended its by-laws so as to allow of the publication of papers in medical journals, as well as in the Transactions. This is a step in the right direction, and ought to be the action of all the State societies.

THE WORK OF THE RECENT STATE LEGISLATURE.

THE recent session of the State Legislature was an unusually long one, and, as regards its work in general legislation, was somewhat unsatisfactory. It undertook much and accomplished very little. As far as the medical part of its labors is concerned, however, we have no reason to complain. About sixteen bills, bearing more or less upon things of interest to the profession, were introduced, and the most important of these were either passed or disposed of satisfactorily.

One of the very last measures of the Legislature was the passage of the bill regulating the licensing of physicians and surgeons. This bill has been published in full and commented on in these columns. It is not a very radical piece of legislation, for it fixes no standard of qualifications, except a diploma, and creates no examining body, but leaves the matter of licensing as before, with the medical colleges. This is not all that could be desired; for there is a wide distrust of many of these institutions, and a feeling that the licensing of medical men ought not to be in the hands of those who educate them. There is no doubt, however, that if we could limit the practitioners of medicine in this State to those who have diplomas from legitimate medical colleges, as the new law provides, a horde of charlatans would be driven from the State, to the benefit of the community and the credit of the profession. We must hope, therefore, that there is enough of soundness and vitality in the law to permit of its being carried out. There is provision for this, but still it will depend largely upon the activity and alertness of regular medical organizations, a fact which we beg the profession to remember. We have an opportunity now to cleanse our State of some of its meanest elements. It will benefit all, if the opportunity is improved.

The State has shown more wisdom than its sisters in enacting the present law. During the past winter attempts to pass similar bills regulating the practice of medicine have failed in Massachusetts, Maryland, Wisconsin, and Iowa. Indeed, New York is the only State where such a bill was successful. This is partly due to the fact that our law is less radical than that proposed in other States. And it is also due to the good sense of our legislators, and the consideration in which our medical organizations and medical men are held.

The establishment of a State Board of Health furnishes also a matter of congratulation. The gentlemen who have been appointed upon it are men of ability and experience. There is, in addition, a majority on the Board of medical men, which is a preponderance that should always exist.

The bill to establish a Lunacy Commission failed by a few votes. This is much to be regretted, and we cannot draw any great consolation from the fact that a commission of three Senators has been appointed to investigate the Insane Asylums and report to the next Legislature. It is not the special defects of the various asylums that need reforming, so much as a change in the whole system. It can hardly be expected that three politicians, of however much ability and honesty, can appreciate the defects which have caused psychiatry to be an unknown science in this country. We shall, however, hope for the best.

The defeat of the anti-vivisection bill was a creditable measure, and deserves notice. The defeat was a decisive one, and although not accomplished without some hard work, it showed that the scientific spirit in this State is not to be smothered by a false philanthropy, as it to some extent has been in England.

The bill to regulate the practice of veterinary medicine failed to pass. This could hardly be expected otherwise, as it was a somewhat premature measure. It is well to encourage all proper measures for elevating the standard of veterinary medicine, but the practitioners of this art are not yet, as a rule, sufficiently advanced in education or scientific attainments to need the protection of regulation.

The appropriation of $35,000 to be expended in the prevention of pleuro-pneumonia, and the bill to compel oleomargarine manufacturers to stamp the

firkins containing their goods, are the only remaining measure of importance having any especial relation to medical men.

It will be seen that the Legislature has dealt very fairly with the medical and scientific interests of the State. We may feel encouraged to believe that a juster value is being placed upon those interests and upon medical opinion than has been the case heretofore.

Reviews and Notices of Books.

THE MEDICAL REGISTER of NEW YORK, NEW JERSEY, and CONNECTICUT, for the year commencing June 1, 1880. Published under the supervision of the New York Medico-Historical Society. WILLIAM T. WHITE, M.D., editor. Vol. XVIII. New York: G. P. Putnam's Sons. 1880.

THE first fact to notice concerning the Medical Register for this year is that it was published promptly on June 1. This is earlier in the year than any of its predecessors, and reflects great credit upon the enterprise of the editor and his associates of the Medico-Historical Society. The present volume in point of accuracy, in variety of information, and in general convenient arrangement of the different subjects, is fully equal to any of the other editions. There are 5,375 registered names of physicians. Of this number 2,491 belong to New York State, 635 to New Jersey, 412 to Connecticut, 1,409 to New York City, and 418 to Brooklyn. Of the 1,409 registered in this city 102 are serving in hospitals. As far as we have examined these lists they are found to be accurate, as is also the case with the accounts of the hospitals and medical societies. In this volume the complete code of ethics is published, as also an accurate statistical account of the mortuary returns of New York and Brooklyn, contributed respectively by Drs. Nagle and Wyckoff; also an exhaustive chronological record of the past year, by Dr. L. S. Horton, and an interesting contribution to the medical history of the City of New York, by Dr. John Shrady, of Harlem, N. Y. The volume is compact, is well printed, and is published in the usual uniform style with previous editions.

A NEW YORK AGENCY FOR TRAINED NURSES has been established by Miss A. S. Mabie at No. 30 East 14th Street. An agency of this kind is a very desirable thing, and has proved useful, we believe, in Boston. The present undertaking is very well endorsed.

THE QUARTERLY EPITOME OF PRACTICAL MEDICINE AND SURGERY is a new publication published by W. A. Townsend, and intended as an American supplement to *Braithwaite's Retrospect*. It appears to be a very good compilation, but covers the same ground as *Walsh's Retrospect*, to which it is not superior.

THE STAMP-TAX ON PATENT MEDICINES.—The druggists are making great efforts to secure the repeal of the stamp-tax on proprietary medicines, cosmetics, perfumes, etc. This, it is claimed, is unjust and burdensome. The income from it amounts annually to only $4,000,000. This represents a valuation of $50,000,000. Patent medicines make up a large part of this sum.

Reports of Societies.

THIRTIETH ANNUAL MEETING OF THE ILLINOIS STATE MEDICAL SOCIETY.

Held at Belvidere, Ill., May 18, 19, and 20, 1880.

FIRST DAY.—MAY 18TH.

(Special Report for THE MEDICAL RECORD.)

DR. E. INGALS, OF CHICAGO, PRESIDENT, IN THE CHAIR.

DR. N. S. DAVIS, for many years permanent secretary, sent his resignation, owing to ill-health.

DR. S. J. JONES, of Chicago, was elected his successor.

THE PRESIDENT'S ADDRESS

dealt with questions of hygiene chiefly. He referred to the questions of water, air, and sewage—their relations in large cities in particular.

The metropolis of the State, Chicago, was a problem to the whole State. The city had an endless supply of good water near at hand that could be had for the trifling cost of pumping, but the supply should be kept pure and uncontaminated by sewage. This would make it necessary for the city to empty its sewage through a canal, large enough for ships, to the Mississippi River, instead of into the lake. Sewage sufficiently diluted was made harmless by oxidation. Make the canal large and deep enough for an abundant supply, and no one could be offended by anything cast into it. The cost of such an enterprise was large, but that the people of the State would make it, there was no question.

So great was his faith in good drinking-water, and so thoroughly was he impressed with the value and purity of that of the great lakes that he saw in his fancy, in the future, great conduits reaching from the lakes to the tributaries of the Father of Waters, carrying a never-failing supply of pure lake water from which the cities and villages along their lines might draw for their domestic uses. He took the ground that the government should protect the people against contamination of air and water against infectious diseases, when possible. To this end physicians should be ready to aid the State in gathering vital statistics, and in all other ways that might tend to the accomplishment of this end. To ask for fees for doing this was to refuse to reciprocate for the various favors and prerogatives conferred upon the profession—exemption from jury duty and the like.

DR. CHUMBER, of Warren, made the major report on practical medicine, in which he gave details of several epidemics of

DIPHTHERIA.

He had watched three epidemics recently, and all the facts pointed to the great contagiousness of this disease. In the three epidemics there were 30 per cent. of deaths. In one school district, with fifty-nine pupils, an epidemic was started (no cases having previously existed) by two boys who visited a neighboring community where there were cases of the disease. In a few days both boys had symptoms of cold, received some domestic treatment for their little fever and sore throat, and soon returned to school, where other pupils complained of the offensive odor of their breath. Soon other cases appeared, and the number of persons attacked was 58, with 17 deaths.

Seventeen of his cases had nasal diphtheria, of which two only recovered. Cases with pharyngeal

inflammation only were the mildest. In the nasal cases he advised injections of 3 or 4 per cent. solutions of carbolic acid or salicylate of sodium.

He advised solutions of tannic acid to the throat, and bromine in watery solution of bromide of potassium, as advised by Dr. W. H. Thompson, of New York.

There had been quite an epidemic of

PNEUMONIA

in Northern Illinois during the past winter. The mortality was low, as the result of wide correspondence with physicians showed. Physicians, he found, differed very widely as to the value of blisters, but there was more unanimity in favor of the free use of stimulants in the bad cases, especially of double pneumonia.

In the discussion of this report, Dr. Bird lauded the Billington treatment of diphtheria.

Dr. Hollister advocated the early application of liquid subsulphate of iron to the throat in diphtheria.

Dr. F. H. Davis thought diphtheria, scarlet fever, and erysipelas, were much alike in nature and effect upon the system, and in the influences capable of inducing them.

Dr. C. T. Parkes thought the constitutional and local treatment were to be used together. He was partial to a mixture of equal parts of glycerine and liquor ferri subsulphatis for a local application to the throat, and a solution of boracic acid for injection into the nose in the cases where the nasal cavity was involved.

Dr. J. S. Jewell impressed the necessity in diphtheria of getting at both local and constitutional treatment early. The first few hours were all important.

Dr. B. F. Haller, of Vandalia, read a brief report of an epidemic of

MUMPS,

which had occurred in his section during the past winter and spring. Whole families, even whole communities were attacked at the same time, the cases occurring in rapid succession. Three schools were broken up for the time. Several hundred cases must have occurred in a few months. Men and women, and children of both sexes were attacked. Metastatic inflammation of the testicles was very common among the men and boys. The left testicle was oftenest affected. Metastasis to the mammæ occurred in a few women, but not in any girls so far as he had observed. In a few cases metastatic inflammation of the cerebral meninges occurred and was attended by severe and violent symptoms, a severe chill, pain in the head, limbs, and back, temperature rising to 105° F. often, the tongue becoming coated and dry, and sordes forming in the teeth. The cases lasted about two weeks. Delirium was present in some cases.

The metastasis occurred in the worst cases; in the mild cases it was rare. After the inflammation occurred in the testicles, it never attacked the meninges.

Where metastasis to the testicle occurred, the inflammation in this organ and that in the parotid gland terminated simultaneously. It did not disappear from the parotid on its appearance in the testicle.

There were no fatal cases, and so far, in his observation, no damage to the testicles had resulted; no atrophy had taken place.

The treatment consisted of hot applications to the inflamed points, mild anodynes, and otherwise the expectant treatment.

Dr. Hill, of Bloomington, read a report on surgery, in which he discussed the antiseptic surgery and advocated it, claiming that thymol was as good for the spray as carbolic acid.

He quoted from recent reports of extirpation of floating kidney, of removal of epithelioma of the rectum. One operation of extirpation of cancer of the rectum he had witnessed in Cook County Hospital, Chicago, by Dr. Isham. [This case died in thirty-six hours.]

He next referred to

RODENT ULCER AND EPITHELIOMA.

He advocated the scraping-out process for the rodent ulcers, and related some cases—his own practice.

Case I.—Case of rodent ulcer of lower lip, covering most of the lip. Glands at angle of jaw and cervical region enlarged. The ulcer was thoroughly scraped out with the handle of a scalpel till healthy tissue was reached at every point. Then the surface was scarified thoroughly to favor normal granulation. In four weeks the wound was healed, and there had been no return.

Case II.—A man of fifty years consulted him in July, 1879, for a rodent ulcer of the upper lip of twelve years' standing. Here the scraping treatment was resorted to. Recovery took place in less than a month, and there had been no sign of any return.

Case III.—A man of middle-age, with epithelial cancer of the lip. A V-shaped incision was made, and the mass removed. In two weeks healing was complete. Before many months the disease, or something akin to it, had returned. This was thoroughly scraped. Healing followed, and there was no return.

He next gave a synopsis of late literature on the subjects of genu valgum and fractures of the patella. He also spoke of the treatment of strangulated hernia by stretching upward with the thumb the ring at the point of obstruction and enlarging it—the thumb carrying before it, of course, the integument and subcutaneous tissue. He was himself the author of this treatment, and had used it in over a hundred cases successfully, and no need had been found for the cutting operation. He thought operations on strangulated hernia need rarely or never be made.

Dr. J. G. Harvey read a brief paper, in which was detailed a case of extirpation of the parotid gland.

The operation was done without particular difficulty, and no bad result followed, save a partial paralysis of the same side of the face, which made it impossible for the man to hold a cigar.

He also related a case of operation for femoral hernia in an old woman, in which the obstruction had existed for a number of weeks, and the hernial protrusion had been reduced; but obstruction of the bowels evidently remaining, he operated and found a band of fibrous tissue constricting the gut from above, and entirely within the femoral canal.

Dr. C. T. Parkes insisted that in cases of hernia where there was any evidence of obstruction remaining after a supposed reduction, or where reduction could not be effected, operation should be made. If anything was proved by modern surgery, it was that under antiseptic precautions the abdomen could be opened with impunity. He referred to the records

of such ovariotomists as Keith and Wells to show this.

The result was not as good as carbolic acid for the antiseptic spray. It had been thoroughly tried in Cook County Hospital, and was found in every way inferior to the carbolic acid. He referred to Callender's method of dressing, and thought it nearly or quite as successful in Callender's hands as was the Lister dressing in the hands of its author.

Rectotomy should never be made except where the diseased part was very small. If the whole circumference of the bowel was involved, to the extent of an inch or two in the length of the gut, it should be left alone. The statistics were all against it under these circumstances. He had witnessed five operations of this kind, and four deaths had resulted. In three cases the peritoneal cavity had been opened during the operation. This accident was mainly due to the fact that the operator always *will* pull down the cancerous mass to enable him to cut it loose from its surroundings, and this pulling down just allows the knife to cut through the septum between the bladder and rectum into the peritoneal cavity. No drawing down should be practiced. He thought electro-cautery better than the knife, and no sutures should be used to stitch the border of the cut bowel to anything. They were worse than useless, as had been shown by the experience of the past.

Dr. Bland had operated with the electro-cautery, and had succeeded in saving the sphincter ani muscle by stretching it widely open and cutting above it.

Second Day—May 19th.

Dr. G. W. Nesbitt read the report on Obstetrics. His paper was a plea for practical instruction in midwifery for students in medical colleges. He regarded the lack of such instruction as the greatest want of the undergraduate of to-day, and that if young doctors could go out to practice with practical and experimental knowledge on this subject, more would be done for humankind and for the usefulness of the profession than by any other one step.

He advocated the establishment of lying-in hospitals by medical colleges and dispensary out-services for this purpose.

Dr. W. T. Montgomery, of Chicago, then read the report on ophthalmology and otology.

It was devoted mainly to a discussion of acute and chronic suppurative inflammation of the middle ear. Although nothing new on the subject was offered, the paper embodied an abstract of the best views of the nature, cause, and treatment of this affection. He also reported a case of

Double Optic Neuritis

from a violent fit of anger, with recovery. The patient was a man of an insane diathesis who was exposed to extreme irritation of mind and temper for a week, when he received an unusual shock of aggravation, and had a violent fit of anger.

The next day failure of vision and other symptoms of this affection drove him to seek advice, when, by the ophthalmoscope, the papillæ were seen to be engorged to an extreme degree.

The treatment was free local blood-letting and large doses of chloral and bromide of potassium.

In three weeks from the beginning of the attack the neuritis was gone entirely.

When first examined vision was as follows: right eye, fingers at ten feet; left eye, [illegible]. In the recovery, sight was entirely restored, and has so remained.

Dr. S. J. Jones, of Chicago, emphasized the importance of middle ear troubles. They were greatly neglected by the average practitioner, were a constant annoyance to the patient and his friends, and occasionally led to death.

Dr. F. H. Davis read a volunteer paper on the subject of

Inhalations in Pulmonary Complaints,

more particularly those of the deeper pulmonary tissues. The claim that inhalations of benzoate of sodium would cut short tubercular consumption had been made. The claim was groundless. Inhalations were good for local disorders of the respiratory passages only, and only for a local effect. They were valuable for this purpose.

The vapor he thought the best form to take inhalations. Inferior to this were the gaseous form and that of the spray. He referred to his simple apparatus for the vaporization of medicaments in hot water [already published in the Record], and called attention to what he denominated the dry method. This consisted of a tin funnel, in which a sponge was placed, and on which was sprinkled the medicine, concentrated, only a few drops at a time being used. The patient inhaled from the tube of the funnel, elongated or not by a rubber tube and mouthpiece.

In the catarrhal form of bronchitis the method with water was best. In the purulent form, whether in phthisis or not, he preferred the dry method, using the ethereal oil of eucalyptus or pure carbolic acid.

In incipient phthisis, tuberculous, with dry cough and irritation of the bronchial mucous membrane, steam inhalations of one or two drachms of camphorated tincture of opium to the pint of very hot water, with a few drops of Scotch pine oil, was the best inhalant.

In the breaking-down process in phthisis, with much suppuration, the moist process with carbolic acid or oil of eucalyptus was the best.

He believed, in all such cases, it was important to save the stomach for the digestion of food by giving all medicines possible by inhalation.

Mrs. L. H. Cobb, M.D., of Carlinville, read a paper, very scholarly and logical, on

The Relative Value of Symptoms of Neurasthenia as such, and the Remote Symptoms of Uterine Disease.

All the symptoms of neurasthenia, so-called, although capable of being induced otherwise, were often, in women, the remote symptoms of uterine disease. In women with neurasthenia the cause was generally in disturbances of the generative organs.

In neurasthenia in women with uterine disease, the latter antedated the former in most cases, and must be regarded as causative to some degree. It was, perhaps, possible for neurasthenia to occur to woman from causes not peculiar to her sex, and for this to favor the development of uterine disease; but the remote symptoms of uterine disease were neurasthenia.

Among the profession there were two opposite modes of treatment resorted to for neurasthenia in women. One was rest, travel abroad, hygiene, and perhaps some general tonic treatment. Some improvement often followed this treatment, and of-

ten the patient thought herself well till her return home and resumption of her usual duties, when she usually discovered her old symptoms returning.

The other treatment was that of the gynecologist, and consisted in the treatment of the uterine condition alone. Of the two treatments this was the better, and produced the best results; and if either of these one-sided courses was to be pursued alone and exclusively, this was the one to adopt. The best results, however, would come, and did, to a treatment that combined both methods.

Dr. J. H. Rauch, Secretary of the State Board of Health, then made some statements regarding the work of the board. He gave a statistical account of the doings of the board, by which it appeared that the State had been freed from many irregular practitioners by the rigid examinations and dealings with the profession of the board. Twenty-four certificates to practice had been revoked (since 1877) mostly of itinerant quacks. These doctors had been practically driven from the State.

There were 900 less practitioners in Illinois, in proportion to the population, than in 1877.

Dr. J. J. R. Patrick, of Belleville, read a paper on

MEDICAL SPECIALTIES,

more especially the specialty of "Dental Surgery," in its intimate relations to the general practice of medicine. He took the ground that specialties were necessary to human progress, owing to the wide domain of medical science; that a strict line of demarcation between the different specialties and the general practice of medicine was impossible. He characterized as an abuse the constant habit of so-called dentists of using anæsthetics "as an auxiliary in the extraction of teeth, in order to replace them with others less expensive." He thought the intelligent dentist, as he was constantly observing the various diseases of the mouth, was the most proper person to treat many such affections, and the mouth, the vestibule of the alimentary canal, should receive more attention on the part of the general medical practitioner.

Dr. H. Z. Gill, of Jerseyville, read a paper on

CROUP AND DIPHTHERIA.

He reviewed at length the literature of the subject as to the identity or non-identity of these two diseases, as shown by the false membrane. His conclusions were, that there was no microscopic characteristic that was at all constant by which the two diseases could be distinguished from each other, or by which the cause of either could be determined. On chemical ground it was impossible to draw a line of distinction between the two affections. The nature of the cause, so far as acknowledged proof showed, was of a zymotic character.

His paper included a discussion of the treatment of these affections, particularly the operation of tracheotomy. He had gathered further reports of the operation, in addition to a table he had prepared a year ago, from which it appeared that of all the operations so far reported in Illinois—one hundred and thirty cases—the per cent. of recoveries was twenty-seven and a half. A year ago the per cent. of recoveries was twenty-six and a half per cent.

Dr. E. L. Harriott read a paper on

ANÆSTHETICS IN LABOR.

He advocated them strongly. There were no deaths on record from their use. He had corresponded with many physicians throughout the State on the subject. None had reported any bad effects from anæsthetics in labor; most had used them and all who had were delighted with them.

He took the unusual ground that anæsthetics were as useful in the first stage of labor as in the second. He was sure he had frequently hastened the first stage, the dilatation of the os, by putting the patient under complete surgical anæsthesia, certainly complete unconsciousness, and keeping her in that condition for an hour or more; then allowing her to return to partial consciousness. He invariably kept her in that condition most of the time till complete delivery. He had never seen any uterine inertia or unusual hemorrhage in cases where the anæsthetics were used.

He preferred chloroform as the anæsthetic agent. Of his correspondents who had used anæsthetics in labor, only one or two had used ether, all the rest used chloroform and had no desire to change.

Considerable discussion of this subject followed. From many members came the suggestion of the use of bromide of ethyl, instead of chloroform. No one, however, had used it in obstetrical cases.

Dr. E. W. Lee read a paper on

TRACHEOTOMY,

in which he made a strong plea for the more frequent resort to this operation. He also made several suggestions of improved steps in the operation. The operation itself was one of slight danger, usually. The after-treatment was most important. His cases were all treated after the operation with the constant spray thrown from a large spray producer. Formerly he had used a solution of chlorate of potassium with carbolic acid. Now he had entirely discarded the chlorate and used instead lime water, with an admixture of one per cent. of carbolic acid, and four per cent. of glycerine. This mixture was most beneficial in its solvent effect upon the false membrane. He thought chlorate of potassium should not be used. It was important in making the cut into the trachea, that the latter be held by a pair of tenacula between which the cut should be made. By this means the trachea could be held firmly upward and the edges of the cut held asunder for the more easy introduction of the tube. This latter could be introduced with much more facility, if its extremity was made oval, by being filled by the rounded end of a soft catheter, introduced so as to project slightly, the catheter being of a size to completely fill the cavity of the tube. The tube was, by its presence in the trachea, a constant menace, and should be removed at the earliest practicable moment. He usually removed it for an hour and then returned it, as early as the fourth day after the operation. Generally it could be kept out longer each successive day, until in two or three days it could be dispensed with entirely. He thought the plan of Martin, of operating without the tube, would and ought to become popular. One danger in the removal of the tube, and which always necessitated the presence of the surgeon, was the possibility of fits of dyspnœa which sometimes amounted to strangulation. When this occurred, of course the tube was to be at once reinserted. He believed, with others, this dyspnœa to be due to the projection forward, from the posterior wall of the trachea, of a large fold of the swollen mucous membrane, this bulging forward being possible by the absence of the rings in the posterior third and by the lateral displacement of the anterior cut ends of the rings included in the incision.

When asked the result of his own tracheotomies he stated the number was seventeen, with six recoveries—or something over thirty-five and a quarter per cent.

Dr. Bliss, of Quincy, advocated the operation without tubes at all. He had operated in this way. The sutures introduced into the borders of the incision in the trachea, for holding it open, usually cut out on the fourth day, but by that time the wound would remain open without their aid.

Dr. Cole would not make tracheotomy without having a physician in constant attendance on the case for at least thirty-six hours after the operation. The success of the operation always depended very largely on the minutiæ of the operation being thoroughly carried out.

Dr. Porter, of St. Louis, advocated as long a cut in the trachea as possible. A long incision facilitated the cleansing of the wound and the changing of the tube, while final healing was not delayed by it.

Before adjournment the Society amended its by-laws so as to allow members to publish their papers in medical journals, as well as in the Transactions.

Third Day—May 20th.

Drs. E. W. Lee and Ch. Fenger read a paper on

tuberculosis of joints,

with three cases of excision—all successful. The first was a case of excision of the knee, operated upon by Dr. F.

The patient was a boy of 15 years. He was free from any family history of tuberculosis, and he had previously been healthy.

Two years before he had been kicked in the knee by a playfellow. A little pain followed and it was soon forgotten. In three or four months, swelling appeared and pain. Exacerbations of pain and swelling occurred from time to time, each one successively being worse, till his admission to the Cook County Hospital. In the meantime small abscesses had formed on each side of the joint, superficial of course. They had closed, and again opened and closed.

On admission, his limb was flexed to about 110 degrees, and motion was only possible to 70 degrees, and there was positive genu valgum from weakening or partial destruction of the internal lateral ligaments.

There was no fluctuation, but pain and tenderness in the joint. The joint was painful on pressure at the sides.

Extension by weight and pulleys and fomentations did nothing toward correcting the deformity or improving the joint.

Excision was made under the spray by the aid of Esmarch's bandage.

A semilunar anterior incision was made. There was no fluid in the joint. The capsule of the joint was found whitish, and three to five millimetres thick, and thickest at the sides. The whitish tissue contained irregular sinuous cavities full of thick yellow caseous material. The cartilaginous surfaces of the joint were destroyed superficially, there being "irregular nodular surfaces in which islands of denuded carious bone were surrounded by fibrous adhesions" between the joint surfaces. The adhesions were broken up, the joint brought open and a disk, two millimetres thick, was sawn from the condyles of the femur, leaving healthy structure. A disk, one and a half millimetres, was cut from the tibia.

The patella was found fixed to the condyles of the femur, and was removed subperiosteally. The whitish firm tissue of the capsule was dissected and extirpated. Holes were drilled in the bones laterally and silver wires inserted for bringing the parts firmly together.

Two drainage tubes were inserted laterally, one anterior and the other posterior, and the parts brought together and fixed in a splint and dressed antiseptically.

The thickened capsule was shown, by examination with the microscope, to be studded with miliary tubercles. The after treatment was disturbed by a slight cystitis during the first week, which lasted two or three days and caused a little fever. Later, two or three small acute abscesses formed, which produced fever for a day or two, but rapidly healed.

Osseous union was complete in twenty-four days—as early as takes place in many simple fractures. The patient was out of bed on the thirty-eighth day.

The primary incision healed by first intention and did not reopen, but about the scar little entirely superficial abscesses of the size of a small marble formed. They contained shiny, clear fluid and shiny viscid blood, and were due to "excessive formations of miliary tubercles in oedematous adenoid tissue, then breaking down in fatty degeneration and making small tuberculous vomicæ, and leaving tuberculous ulcers with little or no tendency to heal." Such abscesses resist all local treatment. The only thing to do for them was to extirpate them with all their lining membrane—the latter being thoroughly scraped out. This was done in this case and the little wound of the operation healed rapidly and fully.

He thought the cause of these secondary local eruptions was to be found in the fact that at the primary operations some particles of the fibrous capsule, with its miliary tubercles, had been left, and these formed foci for other tuberculous developments. Such a tendency of tubercle to develop and grow in a scar should be a warning to us to remove every portion of a tuberculous lining membrane of a diseased joint cavity. (The patient was exhibited to the Society.)

The next case was one of

tuberculosis of the elbow joint,

operated upon by Dr. Lee. It was a case of primary osteo-tuberculosis of the head of the radius, with secondary tuberculous fungous arthritis tending to anchylosis.

The patient was a girl of 8 years. Her family history was free from any tuberculous tendency, and except the disease of the elbow she was healthy. When a year old she fell down-stairs. Three months afterward she was noticed to carry the arm flexed to an angle of 45 degrees. It was somewhat stiff, but without swelling, and remained in this condition six years. At seven years, Dr. Lee first saw the case and found the joint quite stiff, and the muscles wasted from disease. He etherized her and made free passive motions. This was attempted to be carried out afterward, and was, for a while, successfully. Finally, swelling and soreness came on, and soon the joint was as bad as at first. All subsequent attempts, of which there were several, were followed by similar swellings and pain.

Subperiosteal excision was made January 27, 1880, with the Lister precautions. A longitudinal incision was made posteriorly dividing the tendon of the triceps longitudinally. The periosteum was carefully removed from all the bony surfaces and parts making up the joint, and was left in connection with its mus-

cular attachments everywhere. The olecranon and head of radius were removed entire, and a cut of two centimetres in length was made from the end of the humerus. Drainage tubes were used, and the wound closed and fixed to an angular splint. In the cavity of the joint were a few drops of slimy grayish pus.

The cartilage of the radial head was gone, and there were found several small cavities or excavations two or three millimetres deep and the same in diameter.

The walls of these cavities were of white, smooth, and hard bone tissue. These cavities appeared to have been the seat of tuberculous development in the bone, which reaching the surface had infected the joint and caused the fungous tuberculous arthritis.

The articulating epiphysis of the humerus showed a different stage of development of the tuberculous process. Here was secondary, superficial, diffuse, osteo-tuberculosis or tuberculous caries, destroying the bone from the surface. The cartilages were all gone, the end of the bone changed in shape and reduced in size.

In places roughened surfaces of bone were exposed, and between them irregular layers of reddish gray fungus granulations; these latter were very friable and easily removed. Microscopically they were shown to be "adenoid tissue with spiculæ of bone undergoing absorption, and miliary tubercle." The articulating surfaces of the olecranon resembled very closely that of the humerus. The incision healed by first intention; tubes were removed in two weeks; in three weeks the wound was entirely healed. After four days passive motion was begun; in four weeks the splint was dispensed with. The well arm was strapped to the side inside the clothing, and the child rapidly gained in the use of the other.

Now she has a useful elbow and arm in every way. Flexion and extension was 90 degrees; pronation and supination about half the normal limit. The limb was short three centimetres, two of the arm and one of the forearm. There was an entire reproduction of bone; all the anatomical points being distinctly made out.

Dr. Lee would not promise that the range of motion would continue as great, but hoped it would. (The patient was exhibited.)

The third case was one of

TUBERCULOUS HIP-JOINT

in the practice of Dr. Lee. The synopsis of the case was as follows:

"Tuberculous fungous arthritis, caries, morbus coxarius of right hip-joint of three years' standing. Large anterior abscess. Excision subperiosteal by external longitudinal incision; the abscess emptied and scraped out from this incision. Drainage through two openings. Three months later the unclosed abscess again laid open by a large incision, and its entire wall of tuberculous tissue scraped out, the abscess closing entirely in eight days thereafter. The leg dressed in Sawyers' (*sic*) modification of Hodgen's splint. The dressings reapplied as often as required, by means of Lee's frame for dressing exsections of the hip-joint."

The patient was nine and a half years old. No tuberculous history. The hip disease was induced by a fall down three or four steps, but lameness and pain did not begin till six months thereafter. Early in the course of the case she had been treated in St. Luke's Hospital for two months with extension by weight and pulling. She was discharged much improved—nearly well. Afterward she had a fall from a chair, upon her back. Soon the hip disease reappeared, and later she was obliged to use crutches. In December, 1879, the abscess appeared anterior to the joint.

The operation was made December 24th, with Lister's method. At this time the limb was shortened an inch and a half, adducted and flexed.

The head of the femur was atrophied from superficial caries, and had a tuberculous cavity.

The bone was sawed off just below the lesser trochanter. The acetabulum contained several roughened surfaces of tuberculous matter, which were scraped off.

The splint referred to (that of Sawyers) is a modification of Hodgen's. It consists of an iron framework that passes along both sides of the crippled limb, extends up nearly to the axillæ and reaches across the body diagonally at the groins so as to encase the trunk on both sides. It is a Hodgen's splint applied to the trunk of the body and extended downward to only one of the lower extremities. The sides are fastened together by bones of iron thrown across and from which suspension pulleys are attached. The body and injured limb are suspended by bands of cloth passed across from side to side exactly as in H.'s splint.

In dressing the wound the patient drew herself up a foot from the bed, by means of the pulleys and the aid of an assistant. Then the Lee's frame was passed under her and she was lowered upon it. The frame was then drawn up by another system of pulleys to a convenient height, the bed was removed and the Lister apparatus applied at leisure and with the patient perfectly at ease.

The frame is made of wood six feet long and two and a half feet wide and has straps of canvas running across it four inches wide and four inches apart. After the patient was fully suspended the straps of the frame as well as those of the splint which came immediately beneath the dressing were loosened and removed. This gave free opportunity to cleanse the wound from below, and to reach it from below with the spray. The dressings were reapplied by laying the several layers in their proper position on the bed, a many toiled bandage being under all, the bed brought into position and the patient being let down upon them, when by bringing around her body the many toiled bandage, the dressing was secured.

The advantage claimed for this mode of redressing was the perfect comfort it gave the patient, even little children would talk and laugh while the dressings were being made.

The operation for the unhealed abscess was made March 30th. The lining of the abscess was found on microscopic examination to be studded with miliary tubercles.

The child had made a good recovery.

This closed the scientific business of the session.

A resolution was adopted declaring it to be the sense of the society that the advertising of quack medicines by newspapers was an imposition upon the people, to their pecuniary loss, and often to their physical discomfort and injury, and was unbecoming a publication making pretensions to teaching morality and religion.

The officers elected for the next year were, Dr. G. W. Jones, of Danville, for President; Dr. Hill, of Bloomington, 1st Vice-President; Dr. G. W. Nesbitt, of Sycamore, 2d Vice-President; Dr. J. H. Hollister, Treasurer.

The next meeting will take place at Chicago.

Correspondence.

NEFTEL'S ALLEGED CURES OF CATARACT BY ELECTRICITY.

To the Editor of The Medical Record.

SIR:—All we ask to say a few words on the reply with which Dr. Neftel favored my note concerning a cataract patient of mine whom he had treated, but whose cataracts I found, on a recent examination, more pronounced than before. I stated that the patient had posterior polar cataract and had grown nearsighted during its progress, which is not uncommon. Her visual acuteness was, and is still tolerably good, though the focus has changed. Dr. Neftel has no word to say about the persistence of the cataract. The result of the objective examination shows, beyond controversy, that the cataract was neither cured nor improved.

As to her alleged improvement of sight, Dr. Neftel writes that "the result of the galvanic treatment has been remarkable, since the patient, at the time she came to him, was unable to distinguish any features, or even to see only her own fingers. In the course of a few weeks, under the galvanic treatment she became able to read small print and see objects quite distinctly." To this my reply is as follows: The patient was able to read fine print at the time she came to Dr. Neftel, because she did it at my office, and would have done it at Dr. Neftel's office also had he taken the precaution to shade her eyes, or darken the room so that her pupils could sufficiently dilate. Patients with central opacities of the cornea or lens see almost nothing when turned toward the light, and see quite well when turned away from it. The lady was and still is in this condition, as I convinced myself the other day. This and the nearsightedness explain the apparent improvement of sight. In confirmation of this, I quote from a letter she wrote me March 31, 1880, when I asked her about her sight, the following passage: "I do not wish to give you the impression, nor have I to any one who has referred to me, that my vision is restored to the strength and clearness of younger years; for while my sight is so much improved in looking at things near at hand, objects at a distance and in the glare of outdoor light are still obscure." Thus, Mr. Editor, not only the objective examination, but also the subjective, and the statements of the patient furnish positive and sufficient proof that the electric treatment has not cured Mrs. W.'s cataracts, nor can even the slightest evidence be brought forward to show that it had any effect on the eye at all.

H. KNAPP, M.D.

NEW YORK, May 31, 1880.

ON THE RELATIONS OF NERVE AND MUSCLE.

To the Editor of The Medical Record.

DEAR SIR:—Though not pretending to any physiological lore, being as yet simply a student of medicine, I was struck by some, to me, seeming errors in conclusion in the first article published by you on this subject. The author of the article mentions seventeen facts which he claims cannot be accounted for by the theory of the day, but, as we are given to understand, are by his.

In regard to the first, I would like to ask him why, at the moment of death or cessation of the nervous functions, there is not an immediate muscular contraction; why is it that it is, as a rule, delayed till the animal heat is largely or entirely dissipated? Will he kindly explain why the muscles of a decapitated frog which, according to his theory, should be rigidly contracted, will still actively respond to the stimulus of electricity? Will he explain Robin's case of the executed criminal?

Under the third fact, will he tell what is the difference between dead men, whether they die of cholera or yellow fever, or something else, since he informs us that with the cessation of nerve-force the muscular fibres contract—why should the manner of death vary the degree of this passive action?

Under the fourth head, he evidently forgets the cardial ganglia. He forgets that the heart does not depend alone on the cerebro-spinal system. He forgets that the heart may be taken entirely out of the body, or more, be cut in pieces, and still evince muscular movement. Again, the uterus is not a voluntary muscle. The heart will continue to beat after its connection with the cerebro-spinal system has been severed; why impossible then, that the uterus should also for a time retain its activity after death. But I would ask Dr. Poole why this is not always the case in parturient women, why ever the necessity of Cæsarian section on the death of the mother?

From the sixth fact we might presume that the writer was a little inclined toward the "vital fluid" of Descartes. Does he consider nerve force, whatever it may be, a ponderable agent, that pressure on a nerve should prevent its passage? This is the weakest point in his whole argument, and is directly explained by the old theory. Irritation at any point in the continuity of a nerve fibre is only manifested in its terminal filament, consequently the pressure on the pelvic nerves cannot but manifest itself in the limbs of the woman, and hence, contrary to Dr. Poole, "is a potent argument" for this theory.

I cannot see how the eighth fact can be used as an argument in favor of the proposed theory; for in the set of cases cited we have no constant contraction, but a general muscular commotion. If we should decide in favor of Dr. Poole, certainly we should expect to see in every case of hanging every joint in the body flexed, since the movement of flexion is stronger than extension.

In reference to the ninth, I think no one will say that spasms and conditions are caused by nervous activity, but rather by irritation, direct or reflex, or by the emanations, which neither Dr. Poole nor any one else, I imagine, can satisfactorily explain. If he would have us claim that this is activity, we may surely claim that coma and syncope are states of nerve activity.

This brings us to the tenth, and here again there seems no breach in the old theory, for, in a depraved condition, what is more reasonable than to give stimulants? Even the argument Dr. Poole uses can be turned against him. Take, for instance, cholera. Admitting that relaxation is active and contraction passive, in this condition we have both, and if stimulants are inadmissible under one theory, they certainly are also under the other. Look at the prostration following a debauch, with the muscular reflexion and tremulousness. If this is a state of nerve activity, why does a stiff glass set him at rights again?

The eleventh fact may be reasonably explained by the old theory. Man only breathes as he feels the necessity. The more venous the blood the greater

the call for oxygen. Even if we cannot explain all the peculiarities of reflex nerve force, how much clearer does Dr. Poole make it?

In regard to the twelfth, we will only say that Ringer says that "aconite does not affect the vaso-motor centre or nerves, and therefore the lessened arterial pressure it induces is due to its action on the heart."

In consideration of the thirteenth, I would ask Dr. Poole if he would regard it too much of a stretch of his imagination to see how the pressure of the heart might influence the calibre of the arteries, and how the capillary attraction of the small vessels might affect their condition of emptiness.

Fourteenth.—The action of aconite, etc., on inflammation is very satisfactorily explained by its weakening the force of the heart, and thus retarding the blood-current and by promoting diaphoresis.

Under the fifteenth may not the same objection be argued against this theory, as he rises against Dr. Bastian. If the writer thinks it absurd that a twitching of muscles could occur in paralysis, under the theory of to-day, is it not equally absurd that a brain whose "functional manifestations have been stopped" should send sufficient nerve force to cause relaxation of the muscular fibres, which there must be if there be twitching?

The sixteenth says that the muscles of a frog are "seen to be more apt to enter into a state of contraction after the division of the principal motor nerve." How is this. An orthodox muscle would immediately contract forcibly, and remain so, and thus would have no lifting power at all, but sustaining power. We certainly should not be satisfied with "more apt;" it should be "infallibly." I do not attempt to say that Dr. Poole is wrong, and that the present theory is right, but I do confidently affirm that there is not one of the points which he raises which cannot be met, or is not equally disastrous to his theory. I doubt not but that he would be entertained by an illustration in Dalton's Physiology, showing the effects of division of the facial nerve. If relaxation is action, why is it that in paralysis of a group of muscles, their opponents are overcome and the limb is flexed or exteuded accordingly? Is tartar-emetic a nerve stimulant, are chloroform and ether? they produce muscular relaxation. Dr. Poole would certainly lead us so to think.

W. C. McGeffert, A.B.

Hudson, N. Y.

THE DETERMINATION OF SEX IN UTERO.

To the Editor of The Medical Record.

Sir:—In the Record of May 15, 1880, I observe an article on the above-named subject by Dr. Carlile, of Palmyra, Ill. It is not my intention to attack his theory, but to state some of my own observations in corroboration of the theory advanced by Dr. Upjohn. After applying the various theories advanced by many of the profession, I have concluded that the undertaking is hazardous when we attempt to inform the mother, however solicitous she may be, of the sex of her unborn child; still I believe that a reasonable solution of Dr. Upjohn's theory can be given, and if you will allow me a short space in your journal I will hazard an opinion. It is generally admitted that all females in the animal kingdom enjoy sexual intercourse just subsequent to menstruation to a greater degree, and that the pleasurableness of the act is diminished in proprotion to its removal from the period. I am now referring strictly to the act which is in obedience to physiological law, without reference to those unnatural indulgences acquired through prostitution.

Now, if this be true, it is not unlikely that the mother should transmit to her offspring her sexual peculiarities, and that, too, in proportion as her nervous forces are drawn upon in the sexual act; therefore the farther the act is removed from the menstrual period the more males will be born; and as the impression upon the mother's mind is diminished so are the chances in the production of a female lessened.

I have received the impression from some one, but am at a loss to give my author, that in dairy districts, from the light reflected by the above law, they are enabled to produce from eighty-five to ninety per cent. of a desired sex.

In breeding the foxhound, for which animal my love amounts almost to weakness, I have observed that the above law is the rule, and, to any one who is curious enough to investigate, he will find the following facts to be true, viz.: That if a male be born as an exception to the above rule or law, it will partake more of the peculiarities of its mother than that male which was conceived in obedience to the law. He is more likely to partake of the same color, his voice will be similar, and about eighty per cent. of this class of males will be provided with imperfectly developed mammæ and that conical protruberance commonly called nipple. It will be found that the female born as an exception to the rule will partake of the peculiarities of the sire.

There are two cases in natnre in which the offspring invariably partake of the peculiarities of the sire. I refer to the *mule* and *hinny;* but, believing as I do, I am convinced that they would by modified if particular attention were paid to the natural law.

I might add a great deal more, but fearing that it might require too much space, I close.

Respectfully yours,

Van S. Deaton, M.D.

Alcony, O., May 26, 1880.

GUNSHOT WOUNDS OF CHEST.

To the Editor of The Medical Record.

Sir:—I agree with your correspondent, Dr. Cowling, in the Record of May 8, 1880, in regard to perfect drainage in perforating gunshot wounds of the chest. Some years ago, while in Florida, I had a man shot down by my side, an ounce bullet having passed through his left lung. The ball entered one-half inch to the left of the cardiac boundary of the left ventricle, and passed out between the fifth and sixth ribs, three inches to the left of the vertebral column. I placed the man on his back, and kept both openings clear.

The hemorrhage was excessive, the mattress became saturated, and blood dripped through it and fell to the floor.

I made no effort to stop this hemorrhage, but kep the patient quiet upon his back without the use of anodynes.

Pieces of the coat and of the flannel shirt, and small pieces of a horn button were floated out by the hemorrhage through the exit in the back.

There was no suppuration, the wounds healed readily, and in three weeks the patient was ably performing his duty as a deck hand on board a schooner.

W. H. Smith, M.D.

San Francisco, Cal., May 20, 1880.

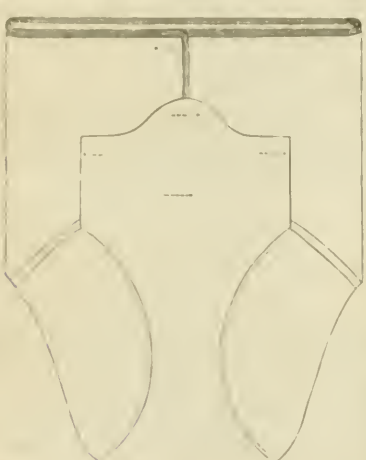
New Instruments.

AN IMPROVED OBSTETRICAL BANDAGE.

By W. B. REYNOLDS, M.D.

To make the lying in woman comfortable is no less the accoucheur's duty than to alleviate her suffering, or save her life. And while the improvement in the forceps, and the treatment of the parturient condition have received so much attention that they can now very well be considered perfect, yet there are minor matters, not unimportant, that to some extent have been neglected; and whoever improves them, however slight, so that they become more useful as appliances to the practical obstetrician, makes some advance in professional knowledge, and saves the sick much disagreeable annoyance.

It is only of the obstetrical bandage I wish to call attention; and in its present mode of application there are many difficulties constantly arising, which annoy the woman and embarrass the attendant. For, instead of giving, as intended, equitable pressure to the relaxed sub-abdominal muscles, and keeping them from remaining too voluminous, preventing the engorgement of, and afflux and stasis of the fluids of



the walls of the uterus, and the further advantage of obviating syncope, and of diminishing the after-pains: it is found generally, unless it is incessantly being rearranged, that these benefits are not obtained, but that it becomes doubled up, forming, as it were, a cord, not only interfering with the circulation and possibly causing hemorrhage, but invariably proving a very great discomfort.

The special advantages of this bandage, of which a cut is here given, are its cheapness, simplicity, the entire comfort to the patient, and the ease and satisfaction afforded by its use to the practitioner. It can be seen at a glance, that when properly made, how easily it can be kept in position, and what uniform support it gives to all the parts. Of its cleanliness I hardly think I can speak too highly, as it retains the napkins perfectly in position, from which they can, with no inconvenience, be changed as often as is necessary, thus preventing the soiling of the clothing or bedding. With little care two or three changes of the bandage will be sufficient to procure entire purity during the period required.

I am quite sure if a trial is given this bandage, it will prove highly satisfactory. For aught I know, one on this principle may have already been successfully used by different practitioners; however, it is more than likely there are some who have not used any of this pattern, and to those I would say a trial will well repay them. From the cut it can be readily seen how simple it is made, the manner in which it is applied, and the uses to which it can be employed. For common use it can be made of a double thickness of unbleached cotton, of a suitable size to fit the patient for whom it is intended; but for delicate ladies it is better to make the abdominal portion of two folds of soft linen, and the perineal, or lower portion, of two thicknesses of twilled cotton.

Marine Hospital, Washington, D. C.

A NOVEL FORM OF MEDICINE GLASS.

We have received an ingenious little medicine glass, invented by Mr. S. D. Mott, one of Edison's assistants at Menlo Park. It consists of a glass tube, the centre of which is enlarged, forming the receptacle for the dose. In the centre of this bulb is a small glass tube which is continuous with the lower part of the large

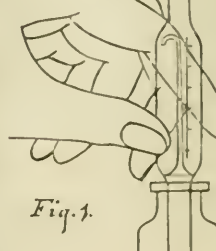


Fig. 1.

Fig. 2.

tube, forming the only means of entrance from the latter to the central bulb or receptacle. The bulb is made of various sizes, the smallest holding a teaspoonful. To use the instrument, the lower end is placed in the bottle and the upper end in the mouth. By suction the bulb is filled, all excess flowing back through the small central tube into the bottle. If the instrument is now reversed the dose can be swallowed without its coming in contact with the teeth. For travellers and for the administration of iron and other preparations liable to discolor the teeth, the instrument will prove particularly useful.

A NEW MICROTOME.

The instrument which for its simplicity, cheapness, and efficiency, is here presented to the microscopist, is a flat piece of steel, 12 inches long by 2–2½ inches wide, with a bevelled cutting edge, 6 inches long, and ⅛ to ¼ inch wide. As presented, the handle is simply smoothed and rounded off.

It has been in use at the School of Histology, at the Columbia Veterinary College, and has held its own against finer and much costlier knives. The design is original.

The mode of action is very simple. The object being mounted in wax, paraffine, or pith, the sections are made by a stroke of the knife, the straight forward motion. As will be readily seen, the larger the section to be made the wider the knife will have to be.

The knife is easily kept in order, and its peculiar shape serves to turn the cutting edge in the right direction for cutting, in the act of strapping.

The microtome is made of the best plate steel, and sold by J. Reynders & Co., of New York, for the low price of $3.

It is known as the "Vincent" microtome.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from May 30 to June 5, 1880.

Vollum, E. P., Major and Surgeon. Having reported in person at these hdqtrs., is assigned to duty at Fort Hamilton, N. Y. H. S. O. 84, Dept. of the East, June 1, 1880.

Irwin, B. J. D., Major and Surgeon. To be relieved from duty at Ft. Meade upon return to that post of Assist. Surg. Brechemin, and then to report in person to the comd'g officer Ft. Snelling, Minn., for duty as Post Surgeon. S. O. 63, Dept. of Dakota, May 27, 1880.

Happersett, J. C. G., Major and Surgeon. Granted leave of absence for three months, to take effect when relieved from duty in Dept. of the East. S. O. 118, A. G. O., May 28, 1880.

Weisel, D., Capt. and Asst. Surgeon. Granted leave of absence for four months. S. O. 122, A. G. O., June 3, 1880.

Byrne, C. B., Capt. and Asst. Surgeon. Assigned to duty at Fort Johnston, N. C., relieving Asst. Surgeon V. Havard, who will comply with S. O. 74 C. S., A. G. O., in his case. S. O. 65, Dept. of the South, June 1, 1880.

Hall, Wm. R., 1st Lieut. and Asst. Surgeon. To proceed to Fort Hays, Kans., and report to Major Noyes, 4th Cavy., for duty with troops ordered to New Mexico. S. O. 113, Dept. of the Missouri, May 26, 1880.

Dr. Keith's Operations for Ovariotomy.—Dr. Keith's success with his ovariotomy operations has been interrupted; when he had got up among the eighties a patient died. It was a very bad case, and was operated on only at the urgent solicitation of the relatives.

Medical Items and News.

Contagious Diseases — Weekly Statement. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 5, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
May 29, 1880.	0	6	58	7	86	31	1	0
June 5, 1880.	0	2	32	4	58	25	0	0

Measles.—After a recent epidemic of measles in Dartmouth College, the following facts were elicited: eighty per cent. of the students are from New England, the rest from all parts of the country. The average age of entrance is nineteen and a half. The number replying to questions was 258. Of these, 213 or 82 per cent. had measles before entering college; 39 or 15 per cent. had had it since entering; and 6 had wholly escaped, so far as they knew.

International Medical Congress.—At a meeting held in London, by delegates of the various universities and societies, to arrange for the next International Medical Congress, the following matters were decided:

The meeting will take place in London, from the 4th to the 15th of October, 1881. A general committee was appointed to make all necessary arrangements. This committee numbers fifteen, Mr. W. Bowman being chairman. Each member of the Congress is to be assessed one guinea.

The New York State Pharmaceutical Society, which met at Syracuse, May 19th, elected the following officers for the ensuing year: President, P. W. Belford, of New York; Vice-Presidents, G. M. Baker, of Brooklyn, Frank Hamilton, Syracuse, H. B. Napier, Oswego; Secretary, C. W. Holmes, Elmira; Treasurer, Wm. Blakie, Utica.

The New Jersey Pharmaceutical Association held its annual session at Jersey City, May 19th. W. N. Laird was elected President; Anselle Walker and A. G. Smith, Vice-Presidents; Wm. Rush, Treasurer; A. P. Brown and R. W. Vandervoort, Secretaries.

Presbyterian Hospital.—Drs. James L. Banks and S. T. Hubbard have been appointed consulting physicians to the Presbyterian Hospital.

Tannate of Quinine, which is becoming popular for use with children, is less reliable than the sulphate, slower in action, and about half as strong. It is soluble, however, in the stomach, and, if pure and carefully given, preferably with a little wine, it will generally act just as well as other preparations.

Case of Early Viability.—Dr. J. H. Moore reports a case, seemingly well-substantiated, of very early viability. The woman, at the time of delivery, was in the last of the fifth month of pregnancy. The child at birth was nine inches long and weighed one and a half pounds. It was nourished at first by dropping liquid food into its mouth. At the age of

fifteen months it was healthy and weighed nineteen pounds.—*Philadelphia Med. and Surg. Reporter.*

Examinations in Sanitary Science.—A new feature was introduced at the recent meeting of the Michigan State Board of Health, held at Lansing, April 14th. It consisted in holding examinations in sanitary science. Such candidates as passed a satisfactory examination were given a certificate of merit. This plan, though as yet imperfect, indicates an interest in sanitary education, and will doubtless give some impulse to the cause.

Four Cremations took place at the Milan crematory in March.

The Electrical Polyscope, invented by M. Trouvé, received a new use at the annual meeting of the Paris Physical Society on April 2d. M. Trouvé placed it in the stomach of a fish swimming in an aquarium, and, without its seeming to suffer any inconvenience, it radiated a light equal to one common candle.

The International Ophthalmological Congress will hold its sixth meeting at Milan, September 1st to 4th next.

Dr. Wm. B. Carpenter has resigned his position as representative of the London University in Firth College, Sheffield, on account of ill-health.

Bromide of Ethyl vs. Ethidene Dichloride.—Mr. J. T. Clover writes to the *British Medical Journal* concerning hydrobromic ether, that it stimulates and excites the patients quite as much as ether. It also often leaves the patients nauseated and giddy. He much prefers ethidene dichloride, because the after-effects are less unpleasant.

Dartmouth Medical School.—Prof. Edwin J. Bartlett, M.D., has been appointed Lecturer on Medical Chemistry at this school. A committee from the New Hampshire State Medical Society were present at its last examinations and warmly endorsed its educational work and methods. Examinations in anatomy, physiology, and chemistry are given, if desired, at the end of two full courses.

On the Diuretic Properties of Antihydropine.—In Russia, cockroach in powder or infusion, has been for a long time a popular remedy for dropsy. The attention of the profession was called to it for the first time by Dr. Kuprianoff, in his dissertation for the degree of Doctor of Medicine, his thesis being that the cockroach in one-grain doses is a reliable diuretic. Later on, Dr. Bogomoloff (*St. Petersburger Medicinische Wochenschrift*, 1876, No. 31) made experiments with antihydropine on six patients in Prof. Botkin's clinic, and three patients in Krasnoe Selo Hospital, all suffering from dropsy induced by various causes. The conclusions to which he arrived were as follows: antihydropine increases the amount of urine and diminishes the amount of albumen and structural elements, dropsical symptoms disappear, the weight of the body diminishes, perspiration in the majority of cases increases, and the digestion is not affected by it at all.

The article referred to above contained also the report of a case from Prof. Botkin's private practice—a lady suffering from cardiac dropsy, after every diuretic had been tried successively without giving relief, was put finally on this popular remedy, and in a short time all dropsical symptoms disappeared. Dr. Spulsky's case was one of the patients in Prof. Slawjansky's gynæcological and obstetric clinic at the St. Petersburg Medico-Surgical Academy. She suffered from a tumor in the peritoneal cavity, probably of a malignant nature, complicated by an ovarian cyst, and an extensive ascites. The average daily amount of urine for eight days, previous to the treatment by antihydropine, was 925 c.c. Then she was ordered to take three grains of the cockroach three times a day. For the first six days her average daily amount of urine increased by 172 c.c. (1097 c.c. per day). During the next five days she passed daily 951 c.c. of urine. At the same time the size of the abdomen and the ascites diminished considerably and her general condition became improved. For the purpose of a cross-test, antihydropine was withdrawn during the following thirteen days. Daily average fell to 610 c.c., ascites increased, abdomen became larger, and her general condition became worse. With the return to antihydropine, daily average of urine increased to 1038 c.c. per day, and the improvement was noticed again in the general and local symptoms. Dr. Spulsky states that both before and during the treatment the patient took approximately the same amount of fluid, that she did not suffer from diarrhœa, that the perspiration was not increased by the antihydropine, and there was no increase of salivation. Appetite, digestion, sleep, and other functions were not disturbed. Except for the appearance during the last few days of a trace of albumen, no qualitative changes in the urine were observed. The above facts are sufficient to indicate the value of antihydropine as a diuretic.—Dr. W. Spulsky in *St. Petersburg Vrachebn. Vedomosti*, February 28, 1880.

A Method of Preserving Rubber Instruments.—Various articles and instruments made of rubber are apt with time to become dry, to crack, grow brittle, and lose their elasticity. Dr. Pol (*St. Petersburg Vrachebn. Vedomosti*, March 6, 1880) recommends the following simple mixture—R. Water of ammonia one part, water two parts—in which the articles should be immersed for a length of time varying from a few minutes to one-half or one hour, until they resume their former elasticity, smoothness, and softness.

The Kansas State Medical Association met at Fort Leavenworth, Kansas, May 11th, 12th and 13th. A large number of members were present. Papers were read by Dr. Floyd, on antiseptic surgery, recommending in that connection eucalyptus globulus; by Dr. Shoyer, on puerperal eclampsia and hysteria; by Dr. Coons, on a case of neuroma of the sciatic, treated by excision; by Dr. D. G. Ross, on diphtheria. A number of other papers were read of much interest. A new tracheotomy instrument was presented by Dr. Shoyer.

The Society discussed the duties of the State Board of Examiners, and passed a resolution instructing the Board to use all proper measures towards carrying out the law regulating the practice of medicine.

A resolution was adopted to the effect that the Kansas State Medical Association would not recognize the diplomas of the St. Joseph Medical College.

The officers for the ensuing year are: President, Dr. E. B. Fryer; Vice-Presidents, Drs. F. M. Dailey and G. Grass; Secretary, Dr. F. M. Morse; Assistant Secretary, Dr. W. B. Gibson; Treasurer, Dr. W. W. Cochrane. A Board of five Censors was also elected. The Society adjourned to meet at Topeka, the second Tuesday of May, 1881.

Dr. William Ogle has been appointed Superintendent of Vital Statistics in the Registrar-General's Department, vice Dr. Wm. Farr, resigned.

Frequency and Cause of Stammering.—M. Chervin, of Paris, who has long devoted himself to the study and treatment of stammering, states that in France it occurs in five out of every thousand persons. It is found much more frequently in men than women, in the country than in the city, and among the ignorant than among the educated. In some savage tribes it is very common.

The most frequent cause is some sudden fright in childhood; but it may come on gradually or from an involuntary imitation of others.

M. Chervin states that 1,000 young men are exempted from military service annually on account of stammering. He urges the importance, therefore, of more attention being given to its cure. He has himself established several schools for this purpose.

In this country it is not very easy to find a reliable place where sufferers from stammering can be treated. There are, however, a few such in some of our large cities. The method of treatment adopted is essentially the same everywhere. The patient is told to take a deep inspiration at the beginning of each sentence. He is taught to speak very slowly and distinctly, and must daily go through a regular series of exercises.

Dr. E. Seguin, of this city, thinks that he has found muriate of ammonia beneficial.

A Case of Abdominal Pregnancy, with Development of Rudimentary Fallopian Tubes and Ovaries.—Dr. E. C. Bowen, of 86 Waltham Street, Boston, relates a peculiar case of extra-uterine fœtation which had come under his notice. The patient, a colored woman, aged 40, was in her second pregnancy when the doctor was called in. She stated that she believed herself pregnant, yet she had menstruated regularly. Examination showed that the uterus was empty, but there was a well-marked abdominal tumor, which led to the suspicion of extra-uterine pregnancy. The woman was suffering from a most persistent diarrhœa at the time. She died a few days later. A post-mortem examination revealed the following condition: A large cyst was found in the abdominal cavity, attached to the peritoneum about half way between the symphysis pubis and the umbilicus. There were no adhesions except at this point. On opening the cyst a fœtus was discovered, which seemed to be about eight months old. The funis was large; the placenta attached to the internal wall of the cyst, at a point opposite the attachment of the cyst to the peritoneum. Most remarkable of all, there existed on each side of the upper part of the cyst a small cord, about four inches long, and the size of a knitting-needle. At the free ends of these cords were small bodies like rudimentary ovaries, about the size of a bean. The whole arrangement looked like an effort on the part of the cyst to transform itself into a uterus and develop the proper appendages.

Small-pox and Cow-pox.—A recent article by Mr. George Fleming, in the *Lancet*, discusses the relations between these two diseases. Since the time of Jenner, the opinions as to whether they were identical or distinct diseases have varied from one side to the other. Mr. Fleming quotes the conclusions of the Commissioners of the Academy of Sciences in 1865, and of those of the Italian Medical Commission in 1871 and 1874. From these and other data, the opinion is expressed that small-pox is a different disease from cow-pox. Furthermore, that they are mutually exclusive, and that the occurrence of one in a cow, as in a man, prevents the other.

There are still a good many authorities who do not accept these views of Mr. Fleming.

Muscle-Beating, by C. Klemm, with illustrations, is the title of a little pamphlet giving full directions for carrying out this form of exercise. There has been considerable attention paid to this subject lately, and this pamphlet will prove of general interest. Published by M. L. Holbrook & Co., New York.

The Transactions of the Society of the Alumni of the Medical College of Ohio contain a record of the organization of the Society, and of its annual meetings since 1875. A number of addresses upon various topics, the constitution of the Society, and a minute of the proceedings, make up a volume that will be of much interest to the members of the Association.

Proceedings of the Oregon State Medical Society, Portland, June 12 and 13, 1879.—The Oregon State Society publish a small volume of transactions, but this indicates no lack of energy or interest on its part. The Society appointed a number of standing committees on various medical subjects. It also passed a resolution recommending the adoption of the decimal system. A number of interesting cases were reported and discussed. An elaborate paper on medical education, by Dr. C. H. Merrick, showed an appreciation of the educational deficiencies of our schools, and the need of higher standards was strongly urged by the writer and the Society. The permanent secretary of the Society is Dr. Curtis C. Strong, of Portland.

The County Hospital of Sacramento got into the hands of the homœopaths some time ago. According to the *Pacific Medical and Surgical Journal*, it has been recently taken from them, in part because so much money was spent for drugs, and among the items were three pounds of salicylic acid, and 4,000 grains of quinine.

Acute Rheumatism in a Baby.—A case of rheumatic fever affecting a child nine months old is reported by Dr. Barton Dozier in the *Independent Practitioner*. The knee- and hip-joints were affected. The baby died in three days from cardiac complications.

The Providence Medical Association has been at work for two years, trying to establish a medical library. Through the energy largely of Dr. G. D. Hersey, it has made considerable progress. At the March meeting of the Association all the journals and books so far collected were turned over to the State Medical Society to form the nucleus of a State Library.—*Bost. Med. and Surg. Journ.*

Prescription for Artificial Carlsbad Salts.—The artificial, and especially the natural Carlsbad salts, as sold by druggists, are quite expensive. The following represents the ingredients as given by the *Cincinnati Lancet and Clinic:*

℞ Sodii sulph..... ʒ vi.
Sodii carb. cryst..... ʒ vij.
Sodii chlorid..... ʒ i.
M.

A Case of Fatal Tetanus following enucleation of the eyeball was reported by Dr. J. J. Chisholm in the *Archives of Ophthalmology*, and we have a reprint of it now before us. The peculiar points of interest

were the extreme rarity of tetanus following the usually safe operation of enucleation, the fact that the patient was seventy one years old, and that the symptoms did not appear until the fifteenth day after the operation.

Charlatanist Doctors in Pennsylvania.—We have it on the authority of the *Medical Press and Circular*, that there are 1,500 "magnetic healers" in the State of Pennsylvania. Of these, only 96 have medical diplomas of any kind.

The Air Breathed in Leadville, 10,500 Feet Above the Level of the Sea.—Dr. H Steiman, of Leadville, Col., sends us an interesting article upon the above subject. It has been asserted that the atmosphere of Leadville is poisoned by the smoke and gases from the numerous smelters, of which there are about twenty, in the neighborhood of the city. Dr. Steiman has examined into the question, and comes to the conclusion that the amount of deleterious vapor, though large, is quantitatively insufficient to produce any poisonous effects. The gases from which danger is to be apprehended are those containing lead, sulphur, chlorine, and arsenic. Estimating that each of the twenty furnaces around the city consumes thirty tons of ore per day, he finds that about ten ounces of chlorine, eighty pounds of sulphurous acid, and eighty ounces of arsenious acid would be given off every minute of the twenty-four hours. Most of the chlorine, however, unites to form solid chlorides; more than half of the arsenious acid fails to escape into the air, but is found in a solid condition in the spelss. The sulphurous acid is so diluted by the air that its presence is scarcely noticeable. The lead vapors are the most harmful, but their amount is small, and they can easily be prevented from escaping into the air. The conclusion, then, is that the furnaces are not sources of danger from their poisonous emanations. This conclusion is confirmed by practical experience, as no cases of lead or arsenic poisoning have been found.

Dr. Steiman is of opinion that Leadville is in much greater danger from its neglect to care for the drainage of the city, and the disposal of filth. Nothing, he thinks, but the great natural salubrity of the place, with the high percentage of ozone in the air, has prevented an epidemic from occurring already.

Lectures on Cataract, with a tabulated report of 100 cases, by Dr. G. E. Frothingham, of Michigan University, is a reprint of fifty pages, which can be read with much profit by the student. It is a series of clear and practical clinical remarks upon the subject chosen. Dr. Frothingham employs Von Graefe's modified linear extraction in operating for cataracts.

We regret to see that he never uses electricity to dissolve cataracts; and it must be inferred that he fails in the first duty of the ophthalmologist—that of reading *The Churchman*.

The Duchess Pauline, of Württemberg, has just married a Breslau physician. The lady is twenty-six years old. She has renounced the title and position of a princess of the royal house and has assumed the name of "Von Kiebach." She is the youngest daughter of the late Duke Eugene.

Glycerine was introduced some time ago as a substitute for cod-liver oil, but failed to gain favor. Dr. Larmande now recommends it again in a form which he calls tonic-glycerine. It consists of glycerine 300 grammes (℥ x.), tincture of iodine, 30 drops, and iodide of potassium, 3 grammes (gr. v); the dose being f ʒ ss. This is claimed to restore the appetite and regulate the bowels. Experiments recently made by Munk show that glycerine is not a food in the usual acceptation of the word. Practical experience, however, may show it to have some medicinal value.

Answers to Correspondents.

Benzoate of Sodium.—So many correspondents have asked regarding the use of this salt in the treatment of phthisis pulmonalis that we give a general answer as follows.

Letulerich recommends the following for internal administration:

℞.

Sod. benzoat.	gr. 80 (5.0 grms.).
Aq. dest.,	
Aq. menth. pip. ää	ʒ iss.
Syr. cort. aurant.	ʒ ijss.

M. Sig.—One tablespoonful every hour for adults; a teaspoonful every hour for children less than two years old, and a dessertspoonful for children three to five years old.

Klebs advises the inhalation of ʒ ijss. per day at two or three sittings, conjointly with the benz. magnes. (internally), in doses varying from ʒ i. to ʒ ij. per day.

Schüller uses ʒ i. to ʒ ij. benz. sod. per day, taken by the mouth in doses of ʒ ss. to ʒ i.

Kraczuk employs inhalations of a 5 per cent. aqueous solution.

Others have used and recommended a 2 per cent. watery solution, the sittings lasting at times over an hour.

The dose administered by inhalation is ʒ ss. at starting, with a gradual increase up to and above ʒ iss. daily. Two to three inhalations are practised each day, the sittings in some instances lasting two hours (counting pauses for rest).

The minimum dose appears to be about 10 grains; the maximum ʒ ss. and even ʒ i.—Ed.

Expulsion from Medical Societies.—An Old Subscriber of Covington, Ky., asks if a medical society under the jurisdiction of the State and National Medical Association expels a member for violation of its rules, and other local societies are duly notified of the fact, is it, or not, proper for such societies (duly notified) to have professional intercourse with the expelled member?

[This will depend partly on the nature of the offense and partly on the status of the society. If the member be legally expelled by a local chartered society for breach of the code of ethics of the A. M. A., the members of other similar societies should refrain from professional intercourse with the expelled person. If, however, the expulsion be for breach of some local rule or by-law, as for non-payment of dues, etc., or for indecorous behavior at a meeting, other societies are not bound to take notice of it. On the other hand, if the expelling society be a voluntary or unchartered one there is no obligation on the part of other societies to govern themselves by its action in the premises, for the reason that a member may be unjustly expelled and be left entirely without redress, while, if unjustly or illegally expelled from a chartered society, he can, by due process at law, compel it to reinstate him.—Ed.]

Original Lectures.

ETIOLOGY AND TREATMENT OF UTERINE DISPLACEMENTS.

By MONTROSE A. PALLEN, M.D., LL.D.,

PROFESSOR OF GYNÆCOLOGY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

PART II.—TREATMENT.

GENTLEMEN:—You will probably recollect, when speaking of the conditions which bring on uterine displacements, I mentioned that at the period of menstruation, and at the period of erotic excitement, there was an erection of the entire contents of the pelvis, of the uterus and ovaries, and I now tell you there is also an increase in the size of the blood-vessels themselves. The causes of uterine displacements are principally vascular, and this vascular condition may be either uterine, or extra-uterine, and the extra-uterine vascular disturbances may be due either to pressure, dragging, or absence of support. I give you a schedule of the causes of displacements:

Etiology of Uterine Displacements.	Vascular. (Uterine and Periuterine.)	Extra-Vascular.	Pressure. Dragging. Absence of support.

The vascular conditions I have already described. I have told you why, from the retention of blood, the uterus becomes erect and increased in size; that an increase in the quantity of blood determined not only the erection, but the increase in the weight of the parts; and, under this head, we would class the great causative of uterine displacements, as vascular. A plus quantity of blood makes the uterine structure, the periuterine, and the connective-tissue spaces larger than normal.

For the purpose of illustration, suppose we have an india-rubber band, and we attach to it an ounce weight, and that by pulling down upon the weight, the elasticity of the rubber is just sufficient to make it rise and fall rapidly. If we add half an ounce, thus increasing the weight to an ounce and a half, we find the elasticity diminished, and if we add another half ounce, thus increasing the weight to two ounces, we find that the resistance represented by the elasticity of the rubber string is entirely overcome. Thus we have demonstrated that too much weight has overcome the normal elasticity of the rubber string. Now, suppose we have a uterus that weighs two ounces, which is held and supported normally by connective tissue. If its weight be increased to three ounces, the power represented by the connective tissue is decreased by the weight of the uterus; therefore the elasticity of the normal supports become lessened, because the weight is greater, and, as a consequence, the uterus sinks in the pelvis. Now what is the rationale of this condition. The cause is chiefly vascular, an increase in the weight of the organ, due to the presence of an increased quantity of blood. This increased quantity of blood may be inside or outside of the uterus. In ninety-four per cent. of the cases, you may say it is due to the condition of the vascular parts. In the other six per cent., its increase is due to other causes. One of these factors is pressure. Again, we may find that above or below the uterus there is something which may be dragging or pushing it out of the way. This may be attached to the uterine wall, anteriorly, posteriorly, or inferiorly. Again, we have a very large number of cases where there is absence of support, and the uterus sinks in consequence thereof and becomes displaced. Therefore, in the treatment we must never forget to consider the cause of the displacement. Would you think it proper to treat a displacement due to laceration of the perineum the same as if the cause were superincumbent pressure? Certainly not; and yet, if you will consult a large number of the works upon gynæcology, you will find directions for treating these cases by the introduction of a proper pessary. Hitherto, this has been the accepted plan of treatment, and there are many gynæcologists of the present time who recommend the pessary as a means of curing displacement. However, a few men are beginning to pick out of this chaotic class of uterine displacements, various causes for certain conditions, and they are beginning to tell you to treat the cause. Another fact. We must recollect that when the uterus is displaced (and under the head of displacements I mean versions, flexions, and prolapsus generally), you will always find the integrity of the uterine structure deranged. Thus, if the displacement be an anterior version, you will find the anterior wall thickened, and generally hardened; and you will also find that here there is usually some anteflexion. In a large number of cases of retroversion, there is also retroflexion, and the posterior wall is thickened. Where the uterus is prolapsed—that is, when the body of the uterus is lower in the plane of the pelvis than it should be—it gets into a state of retroversion, except in those very rare cases where there is a dragging down from thickening or adhesions of the uterus, or in consequence of a folding forward of the vaginal wall from dislocation of the bladder.

Are we to treat a case of this kind as we would treat a displacement due to the loss of the perineal body? By no manner of means. Now, suppose we have a case of anteversion of the uterus; primarily, this anteversion is produced by what? It is produced by vascular causes, and these are not only uterine, but extra-uterine, or, in other words, there is primarily an increased quantity of blood in the uterine tissues and periuterine spaces, and the weight of the uterus is perhaps three times as heavy as it should be. From some peculiarity of a woman's pelvis, whether from an overloaded rectum, or from the inclination of the pelvic cavity, or from the attachment of the vaginal structure toward the bladder, the tendency of the uterus is to fall forward; and this is the normal tendency of the uterus. The frozen sections of virginal bodies, made by Winckel, Breisky, and Aeby, have demonstrated that the axis of the uterus should be on a line above the bladder. Now, let any weight come upon the uterus, and if it overcomes the resistance of the normal supports, the uterus drops forward most frequently in the nonparous woman, oftener backward in the parous woman. In addition to this, suppose that the woman has a mass of fat in her omentum, or she has a tumor, ovarian, or a subserous fibroid of the uterus; or there may have been an exudation anteriorly, and above the bladder, in consequence of a cellulitis, and the uterus is bound down at that point—it is fixed. Now, I ask you, in the name of common sense, is the wearing of an anteversion pessary going to cure such a case? Suppose the same thing obtains in the converse, that the uterus is drawn backward, then, according to the lights before us, and according to the

teachings of many, we must use a retroversion pessary.

Now, if version is produced from either of the several causes I have mentioned, be it due to uterine or extra-uterine influences, be it due either to pressure, dragging, or absence of support, what are we to do? The first great rule in surgery, where a dislocation exists, is primarily to reduce the dislocation, whether that dislocation be due either to traumatic or pathological causes. The next great rule after the reduction has been accomplished is to retain the part in its rectified position, therefore it is well to give the patient some means by which this may be accomplished. Now, these means are varied. What are they? Primarily rest; secondarily, the change of the pathological into a physiological status by means of adjuvants, and the association of medicaments, diet, and hygiene. Thirdly, after having done this, maintain or retain the dislocated organ in position; and frequently we have to do this by direct surgical interference. Thus, if dislocation be due to pressure, we may be required to remove a tumor; sometimes we cannot remove a tumor without great danger to the woman's life. The tumor, however, may be moved out of the pelvis into the abdominal cavity, and held there by an abdominal bandage. In cases of congestion of the liver, spleen, intestines, or kidneys, we frequently find uterine displacement. The communication between the uterus and liver is such, that if the circulation of the latter be interfered with, the former will necessarily suffer. Hence I say, that the man who tries to treat chronic congestion of the uterus, without paying attention to the circulation of the abdomen, is behind the age. I have frequently tried to impress this important matter upon your minds, and when you get into practice, and have an opportunity of demonstrating this fact in the cases which come to you for treatment, and learn how little attention is paid to it by those about you, you will be surprised at the want of practical adaptation of anatomical and physiological facts, to a proper therapeutical advantage.

Now, suppose that we find dislocation of the uterus, due to dragging downward from a want of support, and that dragging may be what? The bladder being attached to the uterus, and from some cause the connective tissue of the bladder and vagina is defective, it falls down and pulls the uterus after it. Now, of what use is a pessary in that condition? A pessary would merely flatten the bladder upon the vagina, and let it remain where it was. But if a pessary will not act properly, how are we to overcome it? It is a condition partially removable by art; we can overcome the cause, in cases of cystocele, by various surgical procedures, as in a removal of a portion of the relaxed, flabby, vaginal tissue, which lets the uterus fall by failure to support. In the vast majority of cases where the uterus has fallen from cystocele, the lesion does not come so much from the relaxed condition of the bladder, as from that other very frequent cause, namely, laceration of the perineum. You recollect, I told you the uterus and vagina in totality represented an arch. The strongest support known in mechanics is the arch, and nature has adopted this for the holding up of the contents of the pelvic cavity, and the base, not the key-stone, of that arch is the perineum, or, in other words, the genital tract is a horse-shoe-shaped canal, the uterus representing the upper anterior end, the perineum the lower anterior support.

The inferior end of the horse-shoe arch is destroyed when the perineum is torn, the uterus drops down, and dragging the bladder with it makes a cystocele; therefore, in any form of retroversion, anteversion, or prolapsus, dependent upon absence of support, as laceration of the perineum, where you find rectocele, or cystocele, the treatment is nothing more nor less than a radical operation for the repair of the broken perineal structure. Take my word for it, gentlemen, all the pessaries ever invented are of no use in cases of laceration of the perineum. I have studied these classes of cases many years and I have come to the conclusion that the proper way to teach young men how to treat them is to describe only the proper method of procedure, and nothing else. If we find that the tissue is flabby and flaccid, and that a plus quantity of weight has overcome the elasticity of the normal supports, then the damage done should be repaired by a surgical operation. If we find, after we have made a new perineum, that the uterus is still anteverted or retroverted, then we can give the patient a pessary, because the pessary has now a base upon which to rest; but rest ignored, where there is a laceration of the perineum, there is no base for the pessary to rest upon. I have operated within the last three weeks upon three ladies who had what I called many years ago "*perineal wanderong*," that is, a division or a separation under the mucous membrane of the conjoined perineal structures. I found that these muscles were sundered at labor, and the result was a thin patulous band in the inferior segment of the vagina, where the pyramidal perineal body ought to be found. As a consequence, all these ladies had passed through a prolonged course of the usual treatment by various forms of large pessaries, but without any benefit whatever. These pessaries interfered with the circulation of parts in the vicinity of the bladder anteriorly, the rectum posteriorly, and the vaginal walls laterally. The obstructed veins became turgid, the capillaries partook of this turgidity, as did the lymphatics in the pelvic cavities, which are scarcely more than five inches in breadth from behind forward, and instruments were worn measuring nearly four inches in their antero-posterior diameters. Of course, defecation and urination were difficult, and there was likewise a copious leucorrheal discharge.

How are you going to cure such cases as these? I reply, there is but one method: by removing the cause. One of these ladies had borne nineteen years ago a child, at which time a laceration of the cervix and perineum had occurred. The involution that the uterus should undergo after labor had been suspended, and for years the uterus remained larger than normal. In another case involution never took place; hypertrophy of the organ remained for fifteen years, and, on account of absence of support, the necessary result was, dropping in the pelvic cavity of its entire contents. If there be a laceration of the perineum, then excessive weight, or non-shrinking of the connective tissue, will let the uterus drop down, and, as a result, there will be an engorged pelvis and obstructed rectum. This will beget constipation of the bowels as well as vaginal leucorrheal discharge, as a result of interference with the circulation. Then there will be the usual reflex symptoms found under such circumstances, such as supra-orbital neuralgias, pain in the left iliac fossa, sciatic pains, sleeplessness, etc.

In one of the cases to which I have referred, the patient thinks she has taken enough bromide to fill a well-bucket. She had taken large quantities of chloral to make her sleep, and had worn every conceivable form of pessary, and, I am sorry to say, to no

purpose whatever. Now, when we have a case like this, what are we to do? We must get rid of the cause; we must reduce the dislocated organ, particularly if the dislocation is producing a painful condition. If the dislocation interferes with defecation, if the contents of the bowels cannot be cast off properly in consequence thereof, then the organ should be placed at once in as nearly a normal position as possible. But, if we find that the dislocation has existed a long time and the parts have become tolerant of manipulation, we must gradually place the organ in such a position, that when it is reduced, it can be ultimately retained in position. The first step in the proper procedure is to make a surgical operation for its relief, be that operation greater or less, for the restoration of loosened or lacerated tissues.

To illustrate: if we take a rope that is made of a large number of strands of hemp, it represents, in its unity and entirety, a certain resistant power—a certain strength. Suppose a rope containing ten thousand strands is just capable of sustaining five tons. If these strands be separated, it will be found that one of them will not sustain one ten-thousandth part of five tons; or, in other words, the union of many strands increases the strength of the individual strands. So it is with the connective tissue around the uterus. If each shred is properly woven and interwoven to make a proper woof, combined they retain the parts *in situ*. But let us have some of these strands of connective tissue broken, some flabby, some relaxed, and what is the result? We have at that point where they are broken a tendency to dislocation. Now, if there be a pathological condition which increases the weight of the organ, that increase of weight is in inverse ratio; or, in illustration, if my finger represents a series of strands of connective tissue, and my other hand represents ten pounds, the normal resistant power of these strands will bend or give way by letting my hand represent twenty pounds. Suppose the connective tissue is broken in some place, that it is destroyed in others, and atrophied in others; then a weight of ten pounds, which represents the normal resistance of these tissues, will cause a separation at the point where the diseased strands exist. How are we to overcome this and find out that these diseased strands, or this non-resistant tissue, exist?

If you will recall what I gave you on the circulation of the parts as productive of uterine displacements, you can understand how it is, that an increased weight of blood in the connective tissue, constantly recurring, will reduce the strength of the strands that hold the uterus in position: the weight is increased and the elasticity is diminished, and in proportion to the diminution of the elasticity do we have these displacements. Perhaps I can make this plainer. Say we have a woman who presents with prolapsus, that is, a sinking of the uterus in the pelvic cavity. We examine this woman and find, that, according to all known methods of examination, the uterus is normal in size, that the sound goes in two and a half inches into the cavity, that with the finger in the vagina and the hand upon the abdomen conjoined manipulation fails to reveal any increase in the length, size, or lateral dimensions of the organ. We find out its thickness anteriorly and posteriorly, by introducing the sound into the bladder, or finger in the rectum, while the other finger is in the vagina; no abnormal thickness is discovered. But now if we have measured this prolapsed uterus, and find it normal in length, breadth, and thickness, but that it has dropped down in the vagina and the neck rests upon the perineal structure, there certainly must be a cause for it. We eliminate the cause pressure, we ascertain that nothing drags it down, and that there is no want of support. We then know what? That the cause of the procidentia is want of strength in the connective tissue that holds the uterus in place. How are we to rectify this? Primarily, by reduction of the dislocated organ, and secondarily, by its retention in the improved or rectified position. Now are we to do all this by the sole means of a pessary? Not at all; the pessary simply acts as a splint to hold the organ in position long enough to give the overtaxed tissues rest, to permit them to re-establish their elasticity.

Of late years I have been using pessaries very much less than formerly, although I have added three more instruments to the already formidable array, viz.: a retroflexion, an anteflexion, and the general soft-clay pessary.

There are cases where the anteflexed or retroflexed organ cannot be made to stay *in situ*, without the assistance of a pessary—a splint—to hold it. To meet some of these emergencies, I have devised these pessaries and find them better than some others used for similar purposes. Yet they do not get rid of the cause—they simply palliate the effect by lifting the organ into its normal plane, thereby giving the overstrained, stretched, and altered (hypertrophy and sometimes atrophy) connective tissues an opportunity to resume their healthy elasticity. Should there be, however, a varicose condition of the subovarian or periuterine venous plexus, or a separation of alar, ovarian, or periuterine connective tissues, then it is hardly probable that any known instrument, any pessary modification, will radically cure the condition, as it will fail to give equable and generally diffused support.

Pessaries are usually constructed in some form of a ring, bent to be adapted to the vaginal curves, and they necessarily press more in the antero-posterior spaces than elsewhere, that is, they usually rest upon the subpubic ligament and lift the posterior vaginal fornix, in retroversion; and they act, in a measure, just the reverse in anteversion.

If you had a varicose leg to treat by bandaging, you would not bind the instep and the popliteal space with a roller bandage, and leave the rest of the foot and leg uncovered. It is just as philosophical as to treat the majority of uterine displacements with a pessary that will not make equable pressure as well as maintain uniform support.

Years ago I made up my mind that the pathology of uterine disease had been studied in the wrong way, that the philosophy and rationale of so-called ulceration, induration, and displacement were incorrect and unscientific. Reasoning by analogy, I soon discovered that cauterizing the uterine neck, or leeching it, or blistering it, or swinging it in a pessary, was the purest species of empirical treatment. The surgeons, I observed, didn't direct their attention entirely to the ulcer under the skin, but sought to re-establish a more healthy afferent and efferent blood supply, by curing varicose veins or caries of the bone, or even necrosis, or building up a shattered scorbutic constitution. I likewise noticed that these same surgeons kept the inflamed parts, the ulcerated surfaces, the swollen tissues, as quiet and as clean as possible. Here then was a key to unlock the hidden uncertainties of uterine therapeutics. Undoubtedly, almost all uterine disease (save, of course, the specific affections, such as cancer, syphilis, etc.) is begotten

of faulty pelvic vascularization, derangements of the portal, renal, splenic, and mesenteric blood vessels, which in turn engorged the uterine, ovarian, cervical and hemorrhoidal veins, or diminished the supply from a corresponding set of nutrient arterial systems.

Much, very much is to be done to uproot the faulty pathology governing the therapeutics of the diseased female pelvis, but I must omit its discussion to-day, reserving its consideration for a later lecture.

To resume, how are we to imitate the surgeon in his treatment of ulcerated leg, or swollen testicle, or dislocated hip? If the latter should come from a traumatism, reduce the luxation, and maintain the head of the bone by a properly adjusted splint until the lacerated capsule heals; but if the head of the femur be forced from the acetabulum by destruction of the rim of the cup, or in consequence of some effusion or growth in the joint cavities, most assuredly the reduction of the luxation could not be maintained by any form of splint, however ingeniously constructed.

Just so with a displaced uterus. It is an invariable rule with me to first reduce a displaced womb, one that you have always heard me insist upon, one that my assistant, Dr. Von Ramdohr, has seen me practice for six years, one that I have taught for fifteen years, to always place the patient in the knee-chest position, with the femora at right angles to the spinal column, which is at an angle of full forty-five degrees to the plane of the table, and then to lift the perineum either with the fingers or a Sims speculum until the vagina is thoroughly inflated with air. This "ballooning" of the vagina is all-important, because it is a *vis-a-tergo*, a force from behind to facilitate the rolling of the uterus into its normal plane, more particularly when the intestines roll *under* by gravitating toward the diaphragm. This being accomplished, a gentle manipulation of the uterine structure (when in retroversion) will start it downward and forward; or, failing to do it through the vaginal wall, a similar manœuvre through the dilated (ballooned) rectum will accomplish the result. In anteversion the organ drops of its own accord. I never use a repositor to replace the uterus. It is, next to Simpson's sound, the most dangerous instrument a young gynæcologist can use. In the skilled hands of those great masters of uterine surgery, Sims, Emmet, and Thomas, it is used excellently well, yet I would warn you against it, because a uterus not bound down by adhesions can be easily thrown into place by the postural method, and one that is even partly movable, but held by more or less of adhesion, will indubitably drop back as soon as the repositor is withdrawn. After the uterus is in its place we can adapt the pessary, be it Hodge's or any other modification, holding it in place until the air is expelled from the vagina. I have so often given you positive rules about the adaptation of a properly shaped and sized pessary, I mean those ordinarily recommended by the authors in gynæcology, that I shall omit their repetition. At the next lecture I hope to illustrate the practical application of the best of all pessaries, the "utero-vaginal rest" as constructed of soft clay, and at the same time say something *in extenso* about the constitutional treatment of displacements. I claim for the clay pessary uniformity of support, equable pressure in and around the vagina, a perfect antisepsis, and consequently, the most cleanly of materials to use in a woman's vagina, which is certainly very seldom as free from impurities of secretion as nature designed it.

Original Communications.

THE THERAPEUTIC VALUE OF THE IODIDE OF ETHYL.

By ROBERT M. LAWRENCE, M.D.,

BOSTON, MASS.

The iodide of ethyl, or hydriodic ether, $C_4 H_5 I$, may be prepared by careful distillation of a mixture containing ten parts of iodine, five parts of absolute alcohol, and one part of phosphorus.* It is normally colorless, but, on exposure to light, becomes a reddish brown, owing to the separation of the iodine and ethyl, the decomposition taking place slowly in diffused daylight, quickly in sunshine.† Its odor is like that of chloroform, its taste sweetish. It is soluble in alcohol, but not in water. It has no acid reaction, is non-inflammable, and boils at 158° F. (70° C.). Its specific gravity is 1.93 at 59° F. (15° C.).‡ Although discovered by Gay Lussac in 1815, it does not appear to have been proposed as a medicinal agent until 1849, when M. Duette made some experiments, with the object of determining its value as a remedy in phthisical dyspnœa.

Influenced by his favorable report, Dr. Turnbull, of Liverpool, employed it in chronic pulmonary affections. In an address§ before the British Medical Association, he remarked that iodine had often been tried in this class of diseases, but that its use had been abandoned on account of its irritating effects. In order to give it by inhalation, it was desirable to find a compound possessing the requisite volatility and absence of irritating qualities, and he considered the iodide of ethyl to be such a compound.

However, the drug was soon forgotten, and was unheard of for nearly twenty-five years, until attention was directed to it by Professor Sée,‖ of Paris, who after employing it in a number of cases attended with dyspnœa, reported that he had found it very efficient in relieving that symptom. In 1879, Dr. Thorowgood¶ made use of it in several cases of asthma, at the Victoria Park Hospital in London, with good results. The writer has carefully studied its effects, having employed it systematically during the past fifteen months.**

The drug may be *administered* as follows: Having moistened a handkerchief with eight or ten drops, the patient may be directed to inhale the vapor therefrom. As soon as he shall have acquired confidence, let the inhalations be made directly from a small vial, containing half a drachm of the drug, and applied to the nostrils. Let the inhalations be continued for ten minutes at a time, thrice daily, or oftener. Should slight nervous symptoms, due to the primary exhilarating effects of the ether, supervene, the inhalations may be discontinued for some seconds, and then resumed. By this method the system is kept constantly impregnated with iodine.

After frequent personal experiments and observation of its effects on others, the writer feels warranted in making the following statement: ethyl iodide has no depressing effect on any of the functions. It

* U. S. Dispensatory, Part III., 1870.

† Watts's Dictionary of Chemistry, vol. II., p. 534.

‡ Stille and Maisch's Dispensatory.

§ Practitioner, Jan., 1871, p. 56.

‖ La France Médicale, February 2, 1878.

¶ Lancet, London, Jan. 4, 1879, p. 15.

** Medical and Surgical Journal, April 29, 1880.

is a mild invigorant, and its primary action resembles that of sulphuric ether, while it differs from the latter in that it has no anæsthetic properties.

A very brief time is required for its *absorption*. The iodine is taken up by the respiratory mucous membrane, and is conveyed, by the bronchial and pulmonary veins, directly to the left auricle, and thence into the arterial circulation. It has been detected in the urine in ten minutes after the inhalations. The writer has found it in urine voided at the following intervals: forty-five minutes, one, seven, eighteen, twenty-four, thirty hours.

Its *physiological action* is thus described by M. Huette:* "After some inhalations, an impression of calmness and satisfaction announces that the hydriodic ether acts at first in conformity with the other ethers employed in medicine.

"The respiratory motions are carried on with a readiness and fulness advantageous to the circulation. But the antispasmodic action of the ethereal vapor, which favors the absorption of the remedy, is soon followed by the influence of the absorbed iodine. The increase of vigor, ceasing to be limited to the thoracic muscles, extends to the whole muscular system. The appetite is developed, the secretions are increased, the pulse acquires fulness, and the vivacity of the feelings and the activity of the intellect prove that the impulse given to the other organs extends to the brain also."

Later observers have not fully corroborated all of the above statements, though they are in the main correct. The action of the drug on the animal economy in a state of health, is that of an agreeable exhilarant, and is modified by the circumstances of age, sex, and idiosyncrasy.

Professor Sée's opinion on this point is expressed as follows: "After a few inhalations, there is observed a greater facility of respiration, and this phenomenon persists for several hours. There is no anæsthetic nor soporific effect. Frequently a fit of coughing occurs at the beginning of the inhalation."

It appears, therefore—and we may be pardoned for dwelling on this important point, which can be verified by any one who will himself experiment with the drug—that ethyl iodide exerts a special influence over the respiratory function. It has, moreover, been proved that this agent, when inhaled, is capable of relieving certain forms of dyspnœa. How does it accomplish this? What is its *mode of action?*

We know that when from any cause the proportion of carbonic acid gas in the blood is increased, a centripetal influence is conveyed, chiefly by the pneumogastric nerves to the respiratory nervous centre. An undue excitation of this centre results, whereby energetic reflex influences are transmitted by motor nerves to the respiratory muscles. In a word, dyspnœa is produced in the paroxysms of *spasmodic asthma*, and in other forms of nervous dyspnœa ethyl iodide appears to act as an antispasmodic, by relaxing the muscular contraction of the bronchial tubes. Their calibre being widened, more air finds access to the pulmonary vesicles. The blood becoming once more properly oxygenated, the phenomena of dyspnœa are replaced by freer respiration. Hence the drug may also be said to act by lessening excito-motor action.

In the dyspnœa incident to *bronchitis*, and to chronic affections of the air-passages, it promotes a free mucous secretion. Since this secretion becomes, at the same time, of a more fluid consistency, air is more readily admitted to the lungs. The action of the drug is here partly expectorant, and resembles that of the alkalies.* But since in bronchitic dyspnœa, there exists usually, if not always, a reflex contraction of the bronchi, the antispasmodic quality of the drug is also of value in these cases.

If we admit that a frequent cause of dyspnœa is an acute tumefaction of the bronchial mucous membrane,† owing to a dilatation of its blood-vessels, through vaso-motor influence, we may infer that ethyl iodide gives relief by causing a contraction of the capillary vessels.‡

When a difficulty of respiration is caused by pressure on the air-tubes of enlarged and indurated bronchial glands, it is reasonable to expect benefit from the continued use of iodide, administered by this method.

When embarrassed breathing is caused by a *passive congestion* § of the bronchial mucous membrane, which, in turn, is due to an impeded circulation through the lungs or heart, in organic affections of those organs, marked benefit can hardly be expected from the drug in question. Yet in cardiac dyspnœa, good effects have been observed from its use.‖

In general, ethyl iodide appears, in some way, to favor the oxygenation of the blood, and thus stimulate, in a reflex manner, the respiratory muscles. Thus the increased buoyancy of the act of breathing, experienced in widely-different pathological conditions, as a primary result of the inhalation of this drug, may be intelligently explained.

In conclusion, if this agent has, as the writer believes, a very positive therapeutic value, and is a prompt, safe, and efficient remedy in many forms of dyspnœa, it deserves the serious attention of the profession.

May it have a thorough trial at their hands and be judged on its merits.

A few typical cases are appended, illustrating the effects of the drug.

Case I.—Katharine N., aged fifty, short, and of slender build, first came under the writer's care at the Boston Dispensary, in October, 1876. She had been a martyr to asthma and chronic bronchitis for twelve years. Frequent paroxysms of dyspnœa had greatly reduced her strength, and her sufferings were unusually severe. During the next two years trial was made of nearly every known remedy, but without much benefit. Tonics and alteratives seemed of no avail. The nitrite of amyl gave some relief, but was dreaded by the patient on account of its disagreeable physiological effects. In February, 1879, trial was made of ethyl iodide. The result was remarkable. Not only was the dyspnœa relieved, but there was no recurrence of it for several hours, and a good night's rest was obtained. Similar favorable results have followed each inhalation. At the present time, May, 1880, the attacks of dyspnœa are few and far between, and much less severe than formerly.

Case II.—James B., aged fifty-six, slender-built indoor man, contracted spasmodic asthma in the army in 1865, and has been subject to it ever since. He had attacks of dyspnœa frequently in the early morning. Had tried most of the usual remedies. In February, 1879, began inhaling ethyl iodide, and found that it gave positive relief. When used at the

* American Journal of Pharmacy, vol. xxiii., p. 156.

* See resumé of Berkart on Asthma, by Dr. Knight, Boston Med. and Surg. Journal, February 19, 1880.
† Ziemssen's Cyclopedia of the Practice of Medicine, vol. iv., p. 536.
‡ Dr Billings on the action of iodine.
§ Salter on Asthma, p 127. 1868.
‖ Professor Sée. Op. cit.

commencement of a paroxysm, it had the effect of rendering the latter abortive. A decided anæsthesia of symptoms followed its continued use.

Case III.—Thomas A., aged fifty-seven, has had nervous asthma for sixteen years. It first supervened on an attack of bronchitis. Paroxysms of dyspnœa were frequent and lasted some hours. Was obliged to sit up at night. After trial of different remedies, began inhaling ethyl iodide, February 14, 1879. Marked relief followed. After several weeks of this treatment, the paroxysms, which had steadily diminished in number, at length ceased altogether, April 16, 1880. Patient has been free from dyspnœa for a year past, though his respiration is still wheezy.

Case IV.—Mary M., aged forty-five, married, dark-complexioned, rather stout, contracted asthma in the following manner. Sixteen years ago, while engaged in frying salt pork, the patient, through some mishap, was nearly suffocated by smoke. An attack of asthma ensued, and she has since been subject to that affection. Paroxysms, on an average, three times weekly. Had tried the ordinary remedies.

April 14, 1880. Half a drachm of the drug was put into a little vial, and the patient inhaled the vapor. After three minutes, the breathing was easier, and this condition lasted for three hours.

May 4th. Has continued to practice three daily inhalations of ten minutes, and had no attack last week.

May 22d. She states that the medicine has given more relief than any previous treatment.

Case V.—Elizabeth P., married, aged forty-four years, of nervous temperament, has been subject to a difficulty in breathing for eight years past, which is much aggravated by frequent attacks of bronchitis.

May 19, 1880. After five minutes' inhalation of ethyl iodide, there was marked exhilaration of spirits and some hysterical laughter. This phase was shortly succeeded by a feeling of invigoration. This condition, with a sensation of calmness and well-being, lasted for some hours.

May 24th. The same effects have followed systematic daily inhalations.

AN INTERESTING CASE.

By HORATIO R. BIGELOW, M.D.,

WASHINGTON, D. C.

Dr. ———, late an acting assistant surgeon, U.S.N., came to me for treatment about four weeks since. As his case was a really interesting one to the neurologist, he very courteously gave me permission to publish it in detail. His service in the United States Navy has been, for many years, in iron-clads which have been stationed along the Atlantic coast from Maine to Florida. As an applicant for a position upon the retired list he was furnished with the following certificates:

"Washington, May 21, 1879.

"*To the President and Members of the Naval Medical Board:*

"Gentlemen:—I have known Dr. ———, U.S. Navy, for several years past, and during that time have observed that he was an almost constant sufferer from a severe and complicated form of neuralgia. He long ago consulted me in regard to his malady. It is of an obscure and unusual nature, and I have always classed it among the anomalous neuroses resulting from long residence in iron-clad ships, with a paralytical character impressed on it by exposure to malarial influences. Very respectfully,

"Richard C. Dean,
"*Medical Inspector, U.S.N.*"

Naval Dispensary, Washington, D.C.
May 21, 1879.

"I hereby certify that ———, acting assistant surgeon, U.S. Navy, has been under my professional care several times during the past two years for treatment. He suffered from the effects of malarious influences, manifested by neuralgia, conjunctivitis, and vascular and divers nervous phenomena.

"Philip S. Wales,
"*Medical Inspector, U.S.N.*"

Extract from sick report of U.S. iron-clad "Terror," 1874, at Key West, Florida:

"———, acting assistant surgeon, admitted to sick-list February 3, 1873, with neuralgia, superior branch, fifth pair. Discharged to duty Feb. 8, 1873. Origin, in the line of duty, from climatic influences."

The Naval Examining Board reported as follows: The Board find that he is affected with neuralgia and headache, and that he is not, at present, physically qualified to proceed with his examination. From his own statement and certificate of medical inspectors R. C. Dean and P. S. Wales, U.S. Navy, the Board is of the opinion that his disability originated from exposure to climatic influences in the line of duty in the navy.

Subsequently the Board reported that "after mature deliberation upon all the evidence in the case, we find that Acting Assistant Surgeon ———, U.S. Navy, is at present unfit for active service, but he is not incapacitated within the meaning of the law, and therefore we do not recommend that said O—— be placed on the retired list." The Board held that the disability was a temporary and not a permanent one.

History of the case.—The patient is a man forty-three years of age, six feet in height, of full habit, weighing about two hundred and fifteen pounds. The complexion is of a dark, muddy hue, becoming red, or striated with reddish streaks when suffering with an attack. The brow is furrowed, and the moustache whitened, which effects are due, he thinks, to the severity of the pain. He has an anxious, dejected caste of countenance. The neck is short and thick. The cheeks and chin heavy and flabby. He has suffered in times past from attacks of intermittent fever, and, during the past five years, a peculiar neuralgic attack has developed very regularly every Friday night, extending over Sunday. These are not preceded by a chill, neither is fever a predominant symptom. The premonitory symptoms are a peculiar congestion of the whole conjunctiva of the right eye, which commences as little streaks radiating from the inner canthus to the iris; the left eye subsequently participating. The lids are somewhat swollen and puffy. The pain, which is of an excruciating character, shoots over the supraorbital region of the right side to the helix of the ear on the same side, then down to the angle of the jaw. He was examined by Dr Baxter, of the U.S. Army, for disease of the alimentary track, but nothing abnormal was developed. Dr. Marmion found the fundus oculi normal. He has had a transient attack of aphasia, and once became unconscious while at

stool, and cannot remember being removed to his bed. He has wandering pains in the limbs, with tingling sensations at the fingers' ends and formication up and down both arms. He has been much dejected, as one that suffers from a dread of some impending danger. Is unable to engage in any connected conversation, has difficulty in expressing his ideas, uses words incorrectly, and has much hesitancy of speech. He finds it impossible to concentrate his mind upon any given subject. Suffered a year ago from loss of virility. He has muscæ volitantes, and sometimes when walking feels as if rubber heels were on his shoes. Has had several severe attacks of vertigo. At one time he apprehended angina pectoris, as he had intermittent stabbing pains around the heart. Has tried a change of climate without avail. These symptoms have been more or less prominent since 1873. He states as a peculiarity that he is prone to assume that especial type of disease which may obtain in the place wherein he may take up his residence for the time.

Present condition.—There are no anomalies of temperature of the head or trunk. The central artery of each eye is somewhat congested. The temporal arteries are not tortuous and there are no indications of atheroma. The carotids are prominent and pulsate heavily. The heart's action is somewhat weak, but the pulse tracing defines no especial characteristic of any abnormality in the arterial tension. There are neither casts nor albumen in the urine. The liver is somewhat enlarged, and the manifest tendency is, I think, to fatty heart. None of the paræsthesiæ are present, and the muscles respond perfectly to the battery. His respiration is billowy and uneven, as often occurs to one who has just eaten heartily. The lungs are normal. He has an uncertain, faltering manner of speech, and expresses himself with difficulty. The protruded tongue shows no deviation to either side. He can easily send the needle of the dynamometer around the arc. His operations are regular, the dejections being plastic. Eight days ago, a small papule made its appearance upon the nose, which was followed by an exanthem over the eyes, upon the day in which the neuralgic attack ordinarily appears; on Saturday he noticed a marked diminution in the pain.

In the treatment of his disease he has exhausted the materia medica—at one time, he followed Dr. Seguin's suggestion, and took increasing doses of cannabis indica. This, however, while it restored his virility, did not diminish his suffering. I wrote a synopsis of the case and forwarded it to Dr. Seguin, requesting his opinion, and while his response was not intended for publication, I am sure that he will not object to my quoting from it. "The attacks in the head are like migraine of vaso-motor nature, and I would advise for them, quinia, and ergotin, and arsenic regularly; an extra dose of quinia to be given just before the expected attack. Perhaps citrate of caffein may relieve the attack itself, fifteen every half-hour for two hours."

I had determined upon this line of treatment before writing to Dr. Seguin, except that I had proposed to use the monobromide of camphor, instead of the caffein, but as my patient from constitutional idiosyncrasy is unable to take quinia in any form, I was obliged to substitute for it, salicin, and, just here, I may add, that the caffein has worked admirably in arresting the severity of the neuralgic attack, three doses proving sufficient.

The conclusion that I had reached was that I had to deal with a case of general plethora, with decided cerebral hyperæmia, and that if I could succeed in conquering this condition, other symptoms would disappear as the general health became better. The periodicity of the neuralgic attacks, together with the nature of the attacks themselves, seemed to indicate a condition of malaria, so far as the regular return of the seizures is concerned, and one of vaso-motor disturbance due to nervous irritability in relation to their character. For these latter arsenious acid and salicin were given, with sufficient ergotin to reduce the cerebral blood pressure. I am unable to account for the exanthem, whose appearance was coincident with a cessation of the pain, and perhaps no less difficult is it to find a logical explanation of the aphasia and loss of consciousness, which were unattended by motor or sensory phenomena or by any subsequent bad effects. The chief difficulty now is ideo-motor—is it due to a limited, circumscribed congestion?

1502 Fourteenth Street, March 25, 1880.

INFRA-HYOID BRONCHOTOMY.

By T. H. MANLEY, M.D.,

LAWRENCE, MASS.

On the morning of the first day of April of this year, at an early hour, I was called to see a man who, the messenger said, was dying. Without inquiring what the circumstances were that led to this condition, whether they were from accident or disease, I started off with all possible haste. Reaching the man's bedside I found him vomiting with violent expulsive effort, and without the power of uttering a single audible syllable, so great was the difficulty in breathing; and what particularly struck me was, that as the retching continued between every short interval of rest, the stridor was increased. Every expiration produced a loud whistling sound, with the ring of true croup.

I was told that he drank, through mistake, about twelve ounces of lime-water. It appeared that, having some stomach derangement, he was in the habit of drinking an infusion of oatmeal and water every night, and that he would commonly rise during the night and allay his thirst with a large draught of this mixture. On the occasion under consideration, it seems that the previous evening some one placed in this pint-pitcher a lump of unslaked lime about the size of a duck's egg, without his knowledge, and after giving the vessel a few turns with his hand, to mix the supposed meal well, he swallowed nearly the whole, when he discovered his mistake; then commenced the vomiting and suffocation.

After the history of the case being hastily given me, I quickly left the room for another, to prepare an antidote to meet the alkali. Milk and sweet-oil being near at hand, in the want of anything better I prepared a cupful, equal parts of these two liquids. In a moment I returned with this to the patient, but it was of no avail; he could not swallow a drop. Finding my efforts futile in this direction, I returned to the kitchen for ice, intending to fill the mouth and envelop the neck with it, hoping by this means to control the violent congestion caused by the corrosive action of the lime.

I was scarcely five paces from the bedside, when the frightened attendant (a female) called me back, and here comes the tragic part of the accident. To my surprise and horror, I found the man on the

floor. In as it seemed, the agony of death from suffocation. Such a terrible sight I never before witnessed. There he lay, the tongue protruding through a thick foam that filled the mouth, the eyeballs bulging from their sockets, the face distorted, swollen, and discolored, the pulse gone at the wrists, the hands cold, and the expression that of a man struggling desperately for life.

I took the whole in at a glance, believing that it would be all up with him if immediate relief were not rendered. Antidotes were not to be thought of for the time, and the only thing offering any gleam of hope was the keen-edged scalpel. But where was my assistant? The only man about—the one who came for me—had disappeared. The woman, in trepidation and terror, had left the chamber, and to call a surgeon with a view of assisting me at that hour (3 A.M.) was absurd to think of. Realizing the critical situation in which I was placed, I decided to make a bold move that would at least ease the patient's suffering, if it did not save his life.

With this determination, I placed the lamp on a chair, laid the man squarely on his back, and gave him to understand that the slightest move on his part would interfere with my efforts to give relief. Then picking up a common strong scalpel, I entered the larynx with two free strokes of its blade, making an incision about two inches wide.

The change that followed was no more sudden than amazing. All consternation on the patient's part passed off. The dusky hue left the cheeks, the tongue was returned to the mouth, and the pulse again beat in the radial arteries. The features assumed an aspect of ease, and the breathing, though through an artificial opening, was not embarrassed. However, the danger was not yet over; bleeding commenced in earnest, and I knew that danger lay in prostration from excessive hemorrhage, and from quantities escaping into the air passages from the divided vessels and interfering with respiration. After all immediate danger was past, I sent for a surgeon with the experience obtained from a long period of military service in the late war of the rebellion—Dr. C. N. Chamberlain—to assist me in controlling the hemorrhage, etc. The doctor, very kindly, immediately responded to my call.

With his skilful aid the bleeding was soon completely checked. We inserted a silver tube, through which the patient breathed, packing the space between it and the edges of the wound with fine, moist sponge to prevent any oozing of blood or mucous. At 8 A.M., alarming collapse set in; however, after an injection of six ounces of whiskey it gradually passed away. No trouble was encountered after this, with hemorrhage. The great difficulty was in nourishing the patient, who did not retain injections well. After the operation for the supply of air, we had to keep in mind the inflamed state of the œsophagus and stomach. Accordingly, after subduing the facial or throat congestion by the liberal use of ice, we closed the opening in the metallic tube and caused the patient to swallow a large quantity of milk and castor oil.

Four hours after the operation by closing the tube, sufficient air passed through the mouth to the lungs to supply the man's wants, showing conclusively that the inflammation and tumefaction of the glottis and surrounding parts had subsided, and that the tube was no longer needed, and the surgeon had only to sustain the strength and heal the opening.

The points which I regarded in this case as of sufficient interest and importance to be placed before the profession are: first the situation; secondly the direction of the incision; and lastly, the harmless effects in the intestines of the large quantity of lime drunk.

Remembering the urgency of the case, that there was no assistant of any description at hand, it became necessary that the opening should be made where it could be done with the most celerity, and where there was not the least liability to dangerous bleeding. The man being of a short build, with a thick, fat neck, it would be useless, without any assistance nor tracheotomy-tube, to open the windpipe low down. Again, in this section the carotids pass dangerously near the trachea on their way to the cranium, so that to hazard an incision in this locality in a dimly-lighted room, and alone, would be hardly justifiable.

The man being forty-five years old, to open his well-ossified larynx with an ordinary scalpel was impossible. Accordingly, acting on the judgment acquired while interne in the Park Hospital, New York, in the treatment of wounds of the neck, inflicted with suicidal intention, I quickly made a *transverse incision between the hyoid bone and the thyroid cartilage of the larynx*. This brought me down below the obstruction in the pharynx, and, by the contraction of the divided muscular fibres, secured a permanent opening without the necessity of using retractors; besides, it allowed of the opening with the least hemorrhage. There was little, except from the small transverse branches of the superior thyroid artery. No tissues to divide except the skin, fat, one ribbon-like muscle, the platysma, and the fibrous membrane that connects anteriorly the hyoid bone with the thyroid cartilage of the larynx. The margin of the muscles, passing nearly vertically close to the median line, were necessarily wounded.

After the introduction of the tube, all bleeding ceased, but it having to be passed down between the vocal cords caused great pain, so, though contrary to the suggestion of my consultant, I removed it as soon as it appeared possible to me to dispense with it with safety. This early removal likewise contributed to accelerate the healing of the wound. While in, it was continually filling with mucus and impeding respiration, so much as to require one to stand by all the time and keep it swabbed out.

On account of the opening being so high up, during the act of deglutition it became necessary to press the edges of the wound together, else the liquids would leak through. I am not able to explain the exact phenomenon of this occurrence, but I suppose it was due to a derangement of the suction apparatus of the pharynx. I have seen the same thing occur where the wounds were self-inflicted.

After the first week, when the wound began to close, this disagreeable leakage ceased. After five weeks' treatment the wound was completely healed (no antiseptics used or disinfectants, except pure water, pure air, and clean linen), and there is nothing to be seen on the neck to indicate a previous mutilation of tissues, except a small scar about the circumference of a pea. He says he can breathe and swallow as easily as ever, and from appearances, certainly, there is nothing to indicate that he is telling an untruth.

In the evening following the accident, he passed by the rectum large quantities of lime in small lumps. Why this should have excited such violent inflammation at the primary orifice of the alimentary canal and none at its middle and lower parts, I cannot understand, unless that it spent its strength at the ont-

set on the first mucous membrane it came in contact with. Had this case terminated fatally, I have reason to believe that I should have had to submit to a judicial investigation—in other words, would have been sued for malpractice. A neighboring practitioner, either through unpardonable indiscretion, or a desire to advertise his name, criticised me in the presence of several spectators, who had assembled by the time he arrived, for making a "transverse incision," stating, in a tone of censure, that it should have been vertical. It is hardly necessary to state that this remark gave fresh alarm to the already terrified friends and relatives.

As soon as I reached home, after leaving the patient, I examined my text-books and could find no description of an operation for bronchotomy done in this region.

I was about to give up the search, in despair, for an author to support my course, when I found a paragraph in "Malgaigne's Surgery" wherein the author "proposes" the operation of "infrahyoid bronchotomy" in cases of grave diseases or foreign bodies in the larynx.

In describing the different stages of the operation, he says: "It has not yet been performed on the living subject."

Though I found little or nothing published to justify my course, still I was and am now convinced that the circumstances were such as allowed of no other means of immediate relief.

Why, I thought to myself, will not my patient recover, when in many suicidal cases I have seen the trachea and œsophagus completely severed, and the patients survive?

Here it will be observed, that, without any previous acquaintance with the particular operation, I did it successfully, acting on the dictates of common sense, without which, time proves that books and blades are of little use.

I am positive, in this case, nothing could have been done that offered my patient so good a chance of life, and me so ready a method of entering the air-passages.

I offer this article for publication, with the hope of getting some light on its literature, and to inform the profession of a method of opening the larynx seldom heretofore performed by surgeons.

I hope also that it will serve as a reminder to some practitioners to beware how they trifle with their neighbor, in needlessly and publicly criticising his practice.

A Case of Double Colon is related by Dr. John M. Alexander, of Clifty, Ind., in the *Cincinnati Lancet and Gazette*. It occurred in a boy who at the time of death was eight years old. He had a very protuberant abdomen, and had always suffered either from diarrhœa or constipation. Sometimes he had no passage for thirty or forty days. At these times he had fever and great tympanitis. The post-mortem showed the colon taking its usual course until it reached the left iliac fossa. It then doubled upon itself and retraced its course, finally descending along the ascending colon and connecting itself with the rectum. Its size was enormous, being eight inches in diameter at the lower part, where it was distended with nearly three gallons of fæces. The total length of the colon was six feet. Tubercles were found in the lungs, but the other organs were healthy.

Reports of Hospitals.

ST. FRANCIS' HOSPITAL, N. Y.

Reports of Practice and Peculiarities of Treatment.

Service of Dr. GEORGE F. SHRADY.

THE TREATMENT OF BURNS.

A number of cases of more or less severe burns have been treated, very successfully, by an application of a gum dressing, which consists of a paste composed of gum acacia, ℥ iij.; gum tragacanth, ℥ i.; carbolized water (1-60), 1 pint; and molasses, ℥ ij. It is applied to the burned surface with a broad flat camel's-hair brush immediately on admission to the hospital, and dries in the course of an hour or two. The dressing is then renewed at suitable intervals, until a firm and unyielding scab is formed. Generally four applications are sufficient for this purpose. The molasses appears to prevent the contraction of the covering, while the carbolized water destroys any odor. The application is not attended with any pain to the patient, and effectually excludes all air to the burned surface, thus avoiding subsequent smarting. The scab cracks and peels off in the course of a fortnight, either leaving a mere rubefaction or a healthy granulating surface. If pus accumulates in the meantime under the scab, the latter is either punctured or gently lifted, giving exit to the discharge. No other dressing is required. Although forming a rather unsightly scab, the dressing is really a cleanly one. This plan of treatment is substantially the same as that advocated by the late Dr. Gurdon Buck, and, all other things being equal, is considered to give the best results. Its special advantages are its ease of application, the small amount of subsequent dressing required, and the freedom from pain. The granulating surfaces are treated with either simple cerate or the white oxide of zinc ointment, according to indications.

TREATMENT OF FRACTURED PATELLA BY THE WEIGHT AND PULLEY.

Two cases of fractured patella were admitted about the same time. Both were male adults. In each case the fracture was transverse, was occasioned by muscular violence, and the amount of separation was respectively two inches and an inch and a quarter. Both cases were dressed after the following plan. The lower extremity was placed on a single inclined plane and extension made by the weight and pulley upon the quadriceps extensor muscle. A broad strip of adhesive plaster was applied to either side of the thigh in such a manner that the lower ends of the plaster crossed each other just above the patella, and terminated in loops at either side of the knee. To these loops parallel cords were attached, and were joined to a stirrup beyond the foot; to the whole a weight of fifteen to twenty pounds was suspended in a line with the inclined plane, and over the foot of the bed.

In order to obtain a well-distributed bearing along the upper margin of the patella, the triangular space left by the crossing of the strips is covered by a brace of plaster. By such means extension is made not only upon the quadriceps muscle throughout its whole extent, but directly upon the upper fragment

of the patella, whose superior border is completely surrounded. The lower fragment is merely steadied by a pad below its lower border, and secured diagonally, upward and backward, to the splint.

In some cases Dr. Shrady advises that a suitable graduated pad be applied to the upper margin of the upper fragment before applying the cross-piece of plaster. By this means an extra purchase is obtained.

In the two cases mentioned, the fragments were gradually brought into perfect apposition and easily maintained there. Passive motion was cautiously commenced at the end of the third week. Although the fragments remained in contact after the patients were walking about the ward, it was fair to presume that the union, firm as it was, was not osseous.

INFLAMED CONGENITAL HYDROCELE OF CORD RESEMBLING INFLAMED IRREDUCIBLE HERNIA.

A German boy, aged ten years, from Kingston, N. Y., was admitted to the hospital with the statement that he had a "rupture which would not go back," and that "there was a bad swelling there, and great pain;" furthermore, that this condition had existed for more than a week, and that the patient was able to be only in one position—upon his back. On examination, a tense, painful, angry-looking, inflammatory tumor was discovered occupying the inguinal canal, and extending into the cavity of the scrotum. The general appearances of the swelling were precisely those of an inflamed strangulated hernia. On a careful examination into the history of the case, it was ascertained that the patient had not suffered from any symptoms of strangulation at any time; that there had always been more or less of a swelling on that side of the scrotum, and that his last trouble came on after an injury to the part. The tumor was dull on percussion, and contained fluid. On the introduction of a hypodermic needle, this fluid was found to be pus. All further manipulation of the tumor, for obvious reasons, was carefully avoided, and the patient was etherized without delay. The diagnosis lay between an inflamed congenital hydrocele of the cord and an inflamed incarcerated congenital hernia. The former was considered more probable, but, in view of the possibility of the existence of the latter, the operation was performed, with the assistance of Dr. Ripley, as for strangulated hernia. As soon, however, as the sac was opened, it was found to contain nothing but pus. The sac was continuous with the testicle below, and extended along the cord to the internal ring, proving the previous existence of a congenital hydrocele of the cord. After emptying the sac and injecting it with carbolized water (1 to 60), a free depending outlet was provided by a counter-opening in the lower part of the scrotum, through which a drainage-tube was introduced. The wound was then left open, dressed with carbolized lotion, and allowed to heal by granulation. The patient made a good recovery.

EPITHELIOMA OF LOWER LIP—CHEILOPLASTY.

A man aged fifty six was admitted with an epithelioma of the lower lip, commencing at the right commissure, involving three-quarters of the vermilion border and two-thirds of the substance of the lip, tapering to a point upon the tip of the chin. The disease was removed by a V-shaped incision, and the gap supplied by splitting the right cheek to the anterior edge of the masseter muscle, and the left cheek for half that distance, dissecting the flaps and sliding their upper corners into contact. Dr. Shrady thought at first it would be necessary to make a curved pedunculated flap, but the parts came readily into position without it. The wanting vermilion border to the new lip was supplied by stitching the mucous membrane to the edge of the flaps. It was found on bringing the lip into place that there was an undue wrinkling redundancy of the upper segment of the cheeks, especially the right. In order to correct this, the upper lip was enlarged somewhat by extending its vermilion border. The edges of the lower lip were carefully brought together at the junction of the vermilion border by hare-lip pins, as were also the corners of the new mouth. The remaining portions were stitched with fine silken sutures. The alternate sutures were removed on the third day, the pins on the fourth day, and the remaining sutures on the eighth day. The parts were firmly united throughout their entire extent, except a small portion of the right angle of the mouth, which healed by granulation.

Progress of Medical Science.

RESULTS OF SURGICAL TREATMENT WITHOUT ANTISEPTICS IN THE KILMARNOCK INFIRMARY.—Coming so soon after the delivery of the address on surgery by Mr. Savory before the British Medical Association, in which he claimed that equally good results may be obtained in surgery without a strict adherence to the principles laid down by Lister, the statistics collected by Dr. McVail from the practice of Dr. Borland at the Kilmarnock Infirmary are worthy of careful consideration. It may be of interest to state that the Kilmarnock Infirmary contains one hundred and twenty beds, and consists of three stories. On the ground floor are the surgical wards, on the middle the medical cases are treated, and on the top floor the fever patients are placed. There are 800 cubic feet to each bed, and from six to ten of the latter in each surgical ward. Of the 513 cases analyzed, thirteen died, seven within thirteen hours after admission, and on this account they are excluded, leaving only six, which is a percentage of 1.1 on the whole. In 107 operations performed there were three deaths, or 2.8 per cent. In comparing this with Mr. Lister's statistics, extending over a period of five years and nine months, the mortality amongst the patients of the latter is found to be 4.4 per cent. In 61 cases in which amputation for disease was performed by Mr. Lister there were 3 deaths, or 4.8 per cent. In Dr. Borland's practice, 1 death in 26 cases, or 3.8 per cent. Mr. Lister had 72 cases of injury with 4 deaths, or 5.7 per cent. In 50 similar cases Dr. Borland had 1 death, or 2 per cent. Mr. Lister reports 6 deaths from hospital diseases in 917 cases, or .65 per cent. Dr. Borland, 1 death in 161 cases from the same causes, or, if 61 cases of abscesses treated were added, the mortality would be reduced to .45 per cent. In conclusion, Dr. McVail properly says that, in order to sustain the views of believers in antiseptic surgery, it will be necessary to show better results than those reported by Mr. Lister.—*Brit. Med. Jour.*, March 20, 1880.

COMPLETE GENERAL ALOPECIA DUE TO A FRIGHT.—A young girl, 17 years of age, of robust constitution, had very thick blond hair, which measured over three feet in length. On March 30, 1875, she received a violent fright from the fall of a flooring, under which

she barely escaped being crushed. That night she complained of pain in the head, with a sensation of general chilliness. On the following day she was unusually restless, and complained of pruritus of the head. On April 1st she was much better, but the itching of the head persisted, and she noticed that her hair came out very freely in the process of combing. On the 2d her hair fell out *en masse;* she dragged out at one time an entire tuft from the vertex, leaving bare a circular spot as large as the palm of the hand. In three days there was not a single hair left on her head, and two days later all other regions of the body were also completely despoiled of hair. The general health, meanwhile, was perfectly satisfactory. One month afterward she consulted Dr. Fredet, and was placed on general and local treatment, consisting of chalybeates, bitters, strychnine, sulphur-baths, lotions, and stimulating applications of all kinds. Nothing, however, proved of the slightest benefit. Two years later the alopecia was still absolutely general.—*Gazette obstétricale.*

An Improved Surgical Needle.—Prof. von Bruns, of Tübingen, has altered his surgical needle so as to do away with the two objections to his old model, viz.: the tendency to catch in the skin while withdrawing it, and the difficulty of cleansing the tube. The needle, as now manufactured, consists of a thin-walled steel tube, 1½ mm. thick and 7 ctms. long, which terminates at one end in a solid, lance-shaped point; the other end is imbedded in a wooden handle. A thin steel wire runs through the tube, ending, toward the point of the needle, in a small hook, and attached at the other end to a button which works in a slit in the handle. When the needle is passed through the flesh, the button is pressed forward, and the hook end of the wire projects through a small opening just below the lance-shaped head of the needle. The thread to be used is then passed over the hook and drawn with it back into the tube, and the needle is then drawn out, carrying the thread with it. The tube can be readily cleansed by drawing through it, by means of the same hook, a thread of thick, soft worsted, which can be moistened with any desired lubricant.—*Centralblatt für Chirurgie,* February 7, 1880.

Polypoid Excrescences of the Female Urethra.—Dr. Terrillon, of Paris, asserts that there are two distinct varieties of polypoid excrescences of the urethral orifice in women. One variety is idiopathic, and due to some slight irritation. The prognosis of this variety, which is the more common of the two, is good. Simple removal of the growths produces a rapid cure. The other variety, on the contrary, although it possesses the same external characters as the preceding, accompanies or precedes tubercular urethritis or cystitis, of which it constitutes an important symptom. The prognosis is grave, on account of the general affection. The growths in this case may be of service in establishing the diagnosis of tuberculosis of the urinary organs, which is often a question of great difficulty in women. Treatment is almost useless, as it, at most, gives only momentary relief.—*Le Progrès médical,* February 21, 1880.

On the Use of the Saponinated Coal-Tar of Le Bœuf in Uterine Therapeutics.—This preparation has been employed in France for many years in the treatment of various uterine affections. It is a preparation of coal-tar emulsified by saponine, the active principle of saponaria officinalis and of quillaya saponaria. It is considered by many to be superior to carbolic acid, because it is equally effective as a disinfectant, and at the same time does not act as a caustic even in its pure state. It is employed as an injection, diluted with water in the proportion of two or more teaspoonfuls to the half-pint, and is also applied in a state of purity by means of cotton tampons, which are soaked in it and left in the vagina or in contact with the cervix uteri for twenty-four hours. As an injection it is useful in leucorrhœa, whether of adults or of young girls; it is particularly serviceable in slight cases where it is either unnecessary or undesirable to use the speculum, and in cases of cancer, where the introduction of that instrument causes pain. It is also recommended for the so-called hygienic vaginal injections, because it possesses the disinfectant properties without the unpleasant smell of carbolic acid. In vaginitis, chronic cervical metritis, cancer of the cervix, etc., it is applied on the cotton tampon in a concentrated form. In a word, it is recommended in all cases of vaginal or uterine disease where an energetic detersive or a powerful disinfectant and antiseptic is called for.—*Le Progrès médical,* February 21, 1880.

Chicken-Cholera.—M. Pasteur recently reported to the *Académie de Médecine* the results of his investigations on the nature of the virus of chicken-cholera. He regards this virus as a microscopic parasite. When one of these parasites was placed under appropriate conditions for culture, as, for instance, in a chicken soup neutralized by potash and rendered sterile by a temperature of over 100° C., the fluid rapidly became cloudy, and in a few hours it was found to contain millions of minute organisms. When guinea-pigs were inoculated with this fluid, it merely produced simple abscesses, which opened spontaneously, and healed up without affecting in any way the general health of the animals. The pus from these abscesses, however, swarmed with the above minute organisms, and when inoculated on chickens, killed them rapidly. The virulence of the fluid obtained by successive culture-processes was so great, that the inoculation of even a small fraction of a drop was invariably followed by the death of the chicken in two or three days. This virulence could be diminished by retarding the development of the organisms, and the inoculation of this less virulent fluid in a diluted form caused symptoms of sickness, but the disease did not prove fatal. M. Pasteur also found that an attack of this milder form of the disease gave immunity from further attacks, subsequent inoculations even with the most infectious fluids producing only simple local lesions, without the slightest general symptoms.—*Le Courrier médical,* February 14, 1880.

Cirrhotic Contraction of the Stomach and Atrophy of the Gastric Glands, with the Clinical Symptoms of Pernicious Anæmia.—In a case that presented a well-marked clinical picture of progressive pernicious anæmia, Prof. Nothnagel, of Jena, assumed as the cause of the disease an atrophy of the gastric glands and mucous membrane. Besides the usual symptoms of pernicious anæmia—marked paleness, retinal hemorrhages, etc.—the chief gastric symptom was a feeling of fulness after the ingestion of a few mouthfuls of food. The autopsy revealed hemorrhages in various organs, and an enormous thickening of the walls of the stomach, which was at the same time so much reduced in size that its cavity would be filled by a large pear. The mucous membrane was replaced by a wavy fibrillar connec-

tive tissue, which was poorly supplied with blood-vessels, no glands could be found. The submucous connective tissue and the muscular coat were greatly thickened. With reference to the symptoms caused by the gastric process, and to the question of diagnosis, it must be borne in mind that there are said to be three varieties of the process: in one there is atrophy of the peptic glands without thickening of the walls of the stomach, and without reduction of its lumen; in the second, there are marked cirrhosis and reduction of size, without any noteworthy atrophy of the glands; in the third, both the above conditions are combined. A priori it may be assumed, that the first of these conditions must be accompanied by the symptoms of an impairment or cessation of stomach digestion, while the second would give rise to physical or mechanical symptoms; in the third, both classes of symptoms will be combined. In point of fact, however, the symptomatology of these individual varieties is not sharply defined, and practically the symptoms may be regarded as the results of the pernicious anæmia, as they can rarely be referred to a primary alteration of the stomach.—*Med.-chir. Rundschau*, February, 1880.

A Peculiar Case of Progressive Pernicious Anæmia.—Dr. Pfannkuch, of Cassel, reports this case. The patient, a girl, nineteen years of age, had been delicate as a child, and had suffered from chlorosis about the period of puberty, but had subsequently grown stout and strong. She complained for a few days of slight weakness and digestive disturbances, for which the doctor, on September 4th, ordered strict diet and the use of Carlsbad water. The treatment was at first perfectly successful, but on September 22d he was called again to see her, and found her pale, with a cool skin and a small, quick pulse. On the preceding day, after eating some apple-sauce, she had been seized with a diarrhœa, which was so violent that she fainted after the fifth passage. No blood was passed per anum. The paleness of the skin and mucous membranes rapidly increased, the skin assuming a waxy hue, and the mucous membrane of the mouth becoming as livid as that of a corpse. The face seemed somewhat bloated, but actual œdema was not observed on any part of the body, and the panniculus adiposus was preserved intact to the last. Any attempt to sit up in bed caused syncope. For some days at the end of the first week, the patient was restless, with much jactitation, nervous twitchings of the limbs, and loud groaning. She then became more and more apathetic, and complained only of headache, palpitation, and general weakness. The area of cardiac dulness was not increased; when the hand was laid over the heart, a strong whirring sensation was communicated to it. There was a loud systolic murmur. The carotids pulsated strongly, and a distinct venous hum was heard over the jugulars. The pulse was at first 100, and increased to 136, but fell in the agony to 90. The respiration was 20, but became more rapid toward the last. The lungs presented nothing abnormal. Bowels constipated from the time the patient took to her bed. Urine contained no albumen. Liver, spleen, and lymphatic glands presented nothing abnormal. The initial coolness of the skin gave place later to increased warmth, but there was little actual fever, the highest evening temperature being 100°. No hemorrhages occurred, and the blood consequently was not examined. Death took place on the fourteenth day. An autopsy was not permitted.

In this case the possibility of a hemorrhage into any of the cavities of the body could be excluded, and hence it was necessary to assume the existence of a hemoptysis, . . . of a rapid destruction of the red blood-corpuscles. The rapid course of the case, and the preservation of the panniculus adiposus, argued against the existence of any cachexia. A vitium cordis could be positively excluded. The symptoms were not those of an ulcus simplex, and, moreover, this would not explain the pernicious anæmia. The patient lived under favorable conditions, and the mother ascribed her illness to a disappointment in love.—*Medicin. Rundschau*, February, 1880.

Comparative Value of the various Antiseptic Dressings.—In the article on antiseptics in the new edition of his Handbook of Surgery, Prof. Bardeleben states that in point of efficiency the carbolic acid dressing takes the first place. The thymol dressing, however, is only second to it on account of the greater difficulty met with in the preparation of strong solutions. Both substances are very volatile; hence preparations made up with gum or fat become inert in course of time, and care should be taken to use only freshly prepared materials, or such as have been kept hermetically sealed. Moist thymol or carbolic acid dressings have the advantage of being readily improvised, but on account of their volatility they require to be moistened from time to time. When jute is used for the dressings, it is not necessary to moisten it oftener than once in twelve hours. Salicylic acid is inferior to carbolic acid and thymol, both because of its slight solubility and because it has less antiseptic power. It is not at all volatile, and hence the materials impregnated with it retain their antiseptic powers indefinitely, provided the small crystals are not mechanically shaken out of the dressings, which is especially apt to occur when jute is used. The acid has this advantage over thymol and carbolic acid, that it is much less irritating to the skin and the wound. Lister's dressing is especially irritating to the skin of the patient, on account of the large amount of paraffine it contains in addition to the carbolic acid, a fact that gives weight to Brun's suggestion to substitute a mild fat for the paraffine. Lister's dressing not only causes redness and pain, but it has even been known to produce pustular eruptions and superficial gangrene of the skin, particularly when the bandages have been drawn too tight. It is not correct to say that carbolic acid acts as an irritant to the skin; it really exerts a paralyzing action, especially on the small vessels. Hence the free hemorrhage from all fresh wounds, when they are douched or sprayed with carbolic acid. In strong solutions (over 3 : 100), moreover, it acts as a caustic. Whether the burning pain experienced when even a weak solution of the acid is left long in contact with the skin, be due to a direct injurious action on the nerves, or to the dilatation of the small vessels and the consecutive blood-stasis, is still an open question. Thymol, even in as dilute a solution as 1 : 1000, also causes severe burning pain in the skin, but it does not paralyze the vessels. With carbolic acid the painful burning gradually passes into anæsthesia, but not so with thymol. Benzoic acid dressings have not often been employed in severe injuries, but they answer well for slighter cases, and for the later stages of severe ones. Under similar circumstances, boracic acid dressings will also be serviceable; these can be kept on hand without difficulty for years, as boracic acid is not volatile. Chloride of zinc preparations should not be brought in direct contact with the

wounded surfaces, as they exert a caustic action. For the same reason, the surgeon must see that discharges that have come in contact with the dressings do not flow back into the wound, or collect about it. When this caution is attended to, a perfect antiseptic dressing can be prepared with the chloride of zinc and jute-cakes. In like manner, jute-cakes, impregnated with the salts of clay, can be used.

In considering the question of the danger arising from the absorption of antiseptic substances, carbolic acid is the only one of which it is necessary to speak, as it is the only one that can be absorbed from the dressings in sufficient quantity to cause serious disturbances of the general health. Carbolic acid is in fact a poison. That it is very often absorbed from the dressings, whether they be moist or dry, is evident from the characteristic and easily recognizable changes in the urine. This is of an olive-green color, becoming dark brown and at last black, after standing a long time in the light; the sulphates are converted into sulpho-carbolates. In spite of these remarkable changes, however, the general condition of the patient is usually unaffected, unless some other injurious agency be at work. Still, in some cases, without any other apparent cause, the appetite fails, and the patients feel weak and inert, and suffer from nausea and occasional vomiting. The intensity of these derangements does not by any means correspond with the intensity of the discoloration of the urine. The patients may feel perfectly well when the urine is exceedingly dark. Hence, although it cannot be said to be necessary to abandon the use of carbolic acid as soon as discoloration of the urine appears, it is advisable to do so, and to have recourse to other antiseptics whenever the discoloration is accompanied by symptoms of general derangement.—*Med.-chir. Rundschau*, February, 1880.

Summary of the Results of Fifteen Cases of Battey's Operation.—In a paper read before the British Medical Association last year (1879), Dr. Battey gives the results obtained in fifteen cases operated upon by him. In eight instances, in which extirpation was performed, there was ovaralgia, in three hystero-epilepsy; and one of each of the following diseases: amenorrhœa, with hystero-epilepsy; threatened insanity; occlusion of the vagina and uterus; and violent menstro-mania. All recovered except two, and in these both ovaries were removed. Of the remainder, seven had both of the organs extirpated, and in all the result was favorable, there being an alleviation of the previous symptoms, and a marked improvement in the health. Of the other six cases, there were three from whom one ovary was removed with benefit to the patient; those in whom there was incomplete extirpation of both organs, the number being three, the results were not good. In twelve of the fifteen cases, the écraseur was employed, in two the ligature, and the finger-nail was made use of in the remaining. There are two methods of operating recommended: either by means of a short incision through the linea alba, or by a shorter opening through the median line of the posterior vaginal cul-de-sac. Dr. Battey prefers the former mode of operating, as he has met with better success by doing so. When both ovaries have been removed, menstruation has entirely ceased; if there is but an incomplete removal of both, or if one organ only has been extirpated, there has been no change in menstruation.—*British Med. Jour.*, April 3, 1880.

Iodic Purpura.—It is a well-known fact that the alkaline iodides produce different forms of skin eruptions, the more common being the papular, which resembles acne, and the bullous or pemphigoid variety. Among the other forms are the eczematous, erythematous, and purpuric. Iodic purpura is comparatively rare, and is supposed by some to be due to the action of the free iodine on the already diseased blood-vessels, by which a diapedesis of the red corpuscles takes place, resulting in the formation of the peculiar staining seen in the disease. Dr. Duffey, of Dublin, in a paper communicated to the Medical Society of the College of Physicians, cites an example of this affection. The patient, aged twenty-five, and a wine-porter by occupation, had rheumatic fever a year previous to his admission to hospital. He never had syphilis, and was moderately temperate in his habits. On admission a mitral regurgitant murmur was discovered, and his knees and ankles were slightly swollen. He also presented an anæmic appearance. On October 6th, ten grains of iodide of potassium, in solution, was ordered to be given three times a day, and on October 29th, this was increased to fifteen grains thrice daily, tartrate of iron being added because of the anæmia. In a month after admission (November 6th), when he had taken about two ounces and a quarter of the iodide, he complained itching of the legs, and also a feeling of warmth in them. On examination the next day, the itching in the meantime having ceased, a distinctly marked small purpuric eruption was to be seen on the dorsal aspect of the feet and the lower four-fifths of the anterior and lateral surfaces of both legs. The spots did not disappear on pressure, nor were they elevated above the healthy tissues, being of a dark blood-red color, round, and of various sizes, from the head of a pin to that of a split pea. No eruption existed elsewhere on the body, except some few acne spots, probably also due to the drug, and which were to be seen over the shoulders. No other symptoms of iodism were present, such as coryza, languor, or weakness, nor was there albumen in the urine. The spots disappeared when he ceased taking the iodide, and no vestige of them could be seen eleven days afterward. November 19th, he was again given iodide of potassium, in fifteen-grain doses, and the next day, after having taken forty-five grains, the eruption reappeared. This time there was no itching, the petechia were not so numerous, were confluent, and were of a lighter hue than those of the previous attack. The spots again disappeared when the medicine was stopped. He was now given chlorate of potassa in fifteen-grain doses three times a day for two days. Iodide of sodium in ten-grain doses three times a day was now ordered, and after having taken about half an ounce it was discontinued, as he complained of severe rheumatic pains. Iodide of ammonium was now prescribed in ten-grain doses, to be given three times a day. The eruption again manifested itself, after having taken twenty grains of the drug; this time the spots were mostly confined to the right leg, and there was no itching. The eruption again disappeared on stopping the medicine.—*The Dublin Jour. of Med. Science*, April, 1880.

Assistant-Surgeons in the Army.—The following gentlemen having passed the examinations, have been appointed assistant-surgeons in the army: Rudolph G. Egbert, of Oregon; Robert J. Gibson, of Connecticut; Robert B. Denham, of Pennsylvania; W. C. Gorgas, of Alabama; Norton Strong, of Michigan; Arthur W. Taylor, of New York.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE UNWRITTEN CODE OF GREAT BRITAIN.

GENERALLY when our English friends take us to task for wrongs which we have committed, or mistakes which we have made, they have so much the better of the argument from the high moral grounds they assume, that we have nothing to say in extenuation. The shortcomings of Americans so often point a useful moral for English critics, that we look upon it as a matter of course, and strive to profit by it accordingly; occasionally, however, we see sufficient light from under our sackcloth to look beyond the mere prejudice which we should naturally hold against ourselves, and to wonder whether there is not sometimes an exception to the general rule of our wrong doing. If we see dimly at first, it may be because our eyes are unfitted for the stronger lights to which our more favored brethren are accustomed. We venture this much by way of preliminary, in order to excuse ourselves for apparent presumption in calling attention to some inconsistencies in a leader on medical ethics in a late number of the *Medical Press and Circular* of London. Our learned contemporary, in his interesting, instructive, and suggestive article, commences with the statement that in Great Britain "there is an unwritten code which regulates the conduct of medical men in this country toward members of their own profession, toward patients, and toward the public," and, further on, "that the strong feeling of *esprit de corps*, the maintenance of professional dignity, and the strict adherence to definite lines of duty that characterize our class throughout the kingdom, have rendered any step to formulate rules of conduct purposeless." In other words, as the members of the profession were above the possibility of committing even the smaller crimes no laws for punishment were needed.

This idea so far accords with our own regarding what relations should exist between professional brethren, that we were ready not only to endorse the doctrine promulged, but to congratulate our English brethren upon the fact that they were so constituted morally as to need none but the golden rule for their government. It is certainly comforting to believe that when physicians are struggling for the top of the ladder, where there is always so much room for the younger men, that such strugglers are always actuated by a truly generous rivalry for distinction. This is as it should be, but except for the occasional show of the skeleton we might suppose that English medical men had no dark closet.

By an unfortunate coincidence in the same number in which the editor upholds the British profession as our model, there are two articles which bear in quite an opposite direction. In the first of these, our distinguished contemporary takes occasion to speak against the general bad effects of medical discussions in lay newspapers, and to deplore the fact that the London *Times* has not a responsible medical editor to whom questionable medical topics can be submitted. The particular subject under discussion was the "Insensibility to Anæsthetics," evidently presented by a sensational medical writer to detail some rather extraordinary personal experiences. The admission of the letter was a sequel for a flood of correspondence, which culminated as usual in a good deal of free advertising. In speaking of the disposition to bring medical matters before the public, the editor of the *Press* very justly, but somewhat inconsistently, says "The opportunity is, of course, eagerly seized upon by numerous surgeons practising dentistry to air their views [and to publish their names and addresses] in the *Times*, while pointing out that such failures as the patient relates never by any chance occur in their hands, etc." But then surgeons practising dentistry may not belong to what may be strictly called the regular profession, and may not, therefore, be considered proper exponents of the ethical doctrines so ably preached by our transatlantic friend.

Bearing, however, as an exception on the general rule of the uselessness of a code, and directly applicable to those in the higher walks of professional life, we refer to another item in the same journal. Under the heading of "Professional Touting," a circular is published "believed to have been extensively circulated among non-medical persons" in which the most shameless advertising is manifest. The way in which it is done is so peculiarly clever, so apparently innocent, so judiciously convincing, and proves so strongly that the better part of the profession of Great Britain are above the requirements of any code, that we give the circular in full:

"*Private and Confidential.*"

"DEAR SIR:—I take the liberty of informing you and my professional brethren in Ulster, who frequently send me country patients, that, after mature con-

sideration, I have decided to confine my practice for the future to skin diseases, in their various forms, and chest affections; and I have little choice in the matter, as the public consulted me only on cutaneous or lung complaints; moreover, by not taking any family practice there will be no risk, even if I should be so inclined, of gaining the connection.

"For fifteen years I have been attached to the Hospital for Skin Diseases, containing twenty beds and suite of baths, and was selected by Mr. Erasmus Wilson to carry on his *Journal of Cutaneous Medicine*, the fourth volume of which I edited before its final discontinuance. As for chest diseases, during the last ten years I have met with a large number in the Royal Hospital, and, as I generally lectured and gave clinical instruction chiefly on lung and heart cases, I suppose this circumstance must account for my present position in relation to these affections. Recently I have been appointed Consulting Physician to the Institution for Chest Diseases, Donegall Pass.

"I remain, dear sir, yours sincerely,

"* * * *"

But, stranger than all, our esteemed contemporary, in commenting upon the propriety of the proceeding, is free to say "that the issue of such a circular is a gross breach of professional propriety, and altogether discreditable to the gentleman whose name is appended to it."

The nearest that American practitioners come to this sort of advertising is the occasional publication in the daily prints of medical certificates for mineral waters and lager beer; the periodical mention of college advertisements, the unpreventable accounts of a remarkable operation, and the like. Still we would not undertake to say that there is not some reason for drawing a codal line by which to govern that exuberance of generous rivalry which, even in professional matters, here is an evidence of our progressive nature. Certain it is, if our code prevents the appearance of such circulars as we have quoted, our English cousin has the wrong side of the argument when he attempts to prove that his arm of the service is beyond the reach of petty regulations.

But these are not the only grievances in the body medical which require some equitable adjustment. The readers of the different medical journals of Great Britain have become familiar with all phases of unprofessional conduct. In fact, the heading of "medical etiquette" under which breaches of professional trust are discussed is almost a standard one, and would lead the innocent New Zealander or the wild American to suppose that the refined and cultivated English medical gentleman was quite a quarrelsome and tricky individual. A junior practitioner complains of the wiles of a senior consultant, which reminds us of some of the experiences of the practitioner of Pine Ridge; a country practitioner asks if it is proper that a consultant should continue attendance upon a patient sent to him merely for advice; another medical man feels justly aggrieved because a professional rival calls him an ignoramus in the presence of a patient. And yet there seems to be no need of any code or standard of morals by which the sheep can be separated from the goats. It is a great reflection upon the medical profession that any but gentlemen should be admitted to its ranks, but as far as we can see, exceptions to what we would wish to be the rule are quite as frequent in other countries as in ours; or, at least, we may be privileged to say that there are enough good men and true in the ranks of the American medical profession to save it from the pitying condemnation of our English cousins. It is true we have a code; we wish there was no necessity for it. At least, by opening our eyes to the wrong-doing around us, we are in that respect a step nearer to reform.

BROMIDE OF ETHYL IN FRANCE.

THE properties and value of this new anæsthetic were quite extendedly discussed at a recent meeting of the Paris Surgical Society. Half a dozen gentlemen related their experience, which, on the whole, gave a qualified endorsement of the drug. The same characteristics, good and bad, which have already been noted by American surgeons, were observed by the French. No fatal cases were reported however.

M. Verneuil was struck with the rapid and powerful action of the anæsthetic. One of his patients, a woman, to whom he gave it, was put to sleep almost in an instant. M. Berger was also impressed with its power; a rabbit put under a bell-glass, in which were placed ten grammes (ʒ iiss.) of bromide of ethyl, expired at once. He had never seen so rapid an action in the case of chloroform or ether. These illustrations may be remembered in connection with the general fact, asserted by Dr. Turnbull, that the danger of an anæsthetic is in proportion to its strength of action. We may state here also the fact that a death is reported to have recently occurred in the practice of Dr. Levis while using the bromide. We are not informed, however, that the anæsthetic was the direct or sole cause of the death.

The opinion was expressed, during the discussion referred to, that the bromide of ethyl did not easily produce complete muscular relaxation, and could not be used in operations where such a condition is essential. The opinions, as we have said, while not against its use, were by no means strongly in its favor. This refers to the ether when inhaled. As a local anæsthetic it was spoken of highly. It is the only anæsthetic of this kind which, owing to its non-inflammability, can be safely used in connection with the actual cautery; such was the opinion of M. Mi-

cain. Evidence of its value in this direction has been given by American surgeons, and the point was referred to by Dr Turnbull, at the recent meeting of the American Medical Association.

It seems that bromide of ethyl is rapidly finding its true place as an anæsthetic and that place is not a very high one.

THE HEALTH OF THE CITY THIS SUMMER.

The sudden rise in the mortality-rate during the last week in May is a sharp reminder that the summer, with its dangers to infant life, is upon us. The number of deaths during the week referred to, was 634. The average death rate for that week is 486; the increase was 141 upon the preceding week, and 238 more than in the corresponding week of last year. There is no epidemic in this city, and the cause of the sudden increase in deaths can only be ascribed to the high temperature at that time, and to our tenement-house system. Neither of these influences would have produced such a result alone, but there is a deadly certainty in their united action. Statistics abundantly corroborate this statement. Out of the 634 deaths, 561 were in tenement-houses, and nearly half were among children under five years of age.

Although the high death-rate of May has fallen somewhat during the present month, we naturally look with some anxiety to the future. As long as our tenement-house system exists as at present, we can only expect some alleviation from the increased sickness and mortality brought on by the heat of the summer. Such alleviation has been attempted for several summers past through a systematic visiting of the tenement-houses by inspectors and doctors, and by the establishment of country sanitaria and excursions for the children and their mothers. All this machinery will soon be put in motion again. The number of visiting physicians to the tenement-houses, appointed by the Board of Health, is increased to fifty. The St. John's Guild, which took out nearly thirty thousand people last year upon its excursions, will soon resume its work. If present efforts are successful, there will probably be three seaside sanitaria for the children established near the city.

The *Post* Fresh-air Fund does an admirable work in this same direction. The excursions which this fund supports take children away into country towns where they are left for a week or more in the families of farmers or other persons, who have volunteered to take a certain number of city children for a time. The expense is, therefore, chiefly that of travelling, and the arrangement is a most happy one for the children.

With these various agencies at work we can be confident that something will be done toward lessening the sickness and mortality among the children of the city. The statistics of past summers assure us of this, showing as they do, an actual decrease in mortality. But we were reminded last month how comparatively helpless we are when the sun begins to pour down its hottest rays. There is need of still more help.

Reviews and Notices of Books.

Headaches, their Nature, Causes, and Treatment. By Wm. Henry Day, M.D. Third edition, with illustrations. Philadelphia: Lindsay & Blakiston. 1880.

If a person, while studying the subject of headaches, wishes to gain at the same time considerable knowledge of the anatomy, physiology, and pathology of the nervous system, with a little general physiology and pathology and an essay on the education of children thrown in, we should recommend to him the present book. It is an excellent work in many respects. The analysis of the causes of headaches is complete to exhaustiveness. The therapeutical part is quite full, and the remarks on the care of children exceptionally good. We are inclined to resent, however, the unnecessary bulk of the book. Its classification is not scientifically made, and is too elaborate to be practical. To find that we may have twenty-one different kinds of headaches is enough to create a twenty-second. In the therapeutical formulas we miss such potent drugs as Hoffman's anodyne, guarana, caffein, croton, chloral, and aconitia.

We do not wish to be captious, however. The book is probably the best out on the subject discussed. At least, if it is no better than Dr. Wright's, it is twice as large, and is better printed.

The Pharmacopœia of the British Hospitals for Diseases of the Skin, London. Second edition. Edited by Balmanno Squire, M.B., London, Senior Surgeon to the Hospital. London: J. & A. Churchill. 1880. Small 8vo, pp. 62.

This little book contains many formulæ which will prove of service to those engaged in the treatment of diseases of the skin. Some discrepancies exist between this and the first edition, the most notable of which is the formula "Boleum Creosoti," in the first edition, being given as follows: creasote, two fluid drachms in thirty gallons of water, while in this edition the quantity of creasote is put down as two fluid ounces to thirty gallons of water. New formulæ are added, and old ones omitted. We would take exception to classing chloasma among parasitic diseases, as is done throughout the book.

Sea-Air and Sea-Bathing. By John H. Packard, M.D. Philadelphia: Presley Blakiston. 1880. 16mo, pp. 124. (American Health Primer Series.)

This work, the eleventh of the series, is fully as interesting and practical as those that have preceded it. A brief account of the different kinds of baths is given in the first chapter. Next comes a chapter on sea-side resorts, and the benefit accruing to those who go to the sea-shore. The portion of the book devoted to "Accidents in Bathing," and the methods of resuscitating those who are apparently drowned, is worthy of careful attention. The book will no doubt prove useful to the laity, for whom it is chiefly intended.

Reports of Societies.

THE NEW YORK SURGICAL SOCIETY.

Stated Meeting, February 24, 1880.

DR. H. B. SANDS, PRESIDENT, IN THE CHAIR.

MYXO-SARCOMA OF THE BACK—EXTIRPATION.

DR. FRED. LANGE presented a patient from whom he had removed a large fibro-sarcoma, accompanied by the following history:

Mr. R——, 60 years of age, had always enjoyed good general health, except several attacks of the gout and a chronic catarrh of the bronchi. He referred, as the cause of his disease, to a handstroke which he had received, in good, friendly intention, but, nevertheless, of great severity, about nine months ago, in the right interscapular space. From that time a certain feeling of uneasiness at that point never left him. After several months a slight prominence appeared there, which, by gradual, and finally rapid, growth, prevented free motions of the scapula, and at last caused incessant pain. When Dr. Lange saw the patient, in December, 1878, the tumor was about the size of a new-born child's head, filling up the whole right side of the interscapular space, dislocating the scapula in a lateral direction, was immovable, and evidently was seated in the lowest parts of the back. The operation was performed on the 21st of January, 1879, when a long incision was made through the trapezius muscle, and the whole space, from the vertebral column to the basis scapulæ, was laid open. On attempting to enucleate the tumor, which was closely attached to the surrounding parts, free hemorrhage occurred. It was removed rapidly by a few large cuts, in order that the principal vessels might be quickly secured, and so prevent a dangerous loss of blood.

In that way the rhomboid muscles, which seemed to be partly destroyed by the tumor, were removed, and the deepest layer of the dorsal muscles and the ribs laid bare. The growth, however, did not have limited boundaries. To a large extent, and that especially along the deep fascia, there existed a diffuse infiltration, apparently representing the spreading of the tumor. He therefore prolonged the incision upward and downward, and removed, as carefully as he could, all the suspicious tissues. For this purpose even the periosteum of several ribs and the superficial layers of the intercostal muscles had to be removed, and though, macroscopically, no diseased parts were left, he closed the wound, feeling convinced that a thorough removal had not been accomplished. The patient, by loss of blood, perhaps also in consequence of the loss of warmth from the enormous wound, and the poisoning influence of carbolic acid, fell into a state of alarming collapse. Dr. Lange washed the wound with a five per cent. solution of chloride of zinc, introduced several drainage-tubes, applied a number of sutures, and had the patient placed in bed after a large antiseptic dressing had been applied. To prevent secondary hemorrhage, pressure was effected by means of a large sponge, fixed over the wound by a tight rubber bandage. The patient, though much exhausted, had a speedy recovery, after he recovered from the first dangers attending the shock and loss of blood.

In this case, as in several others with great loss of blood, he made use, with good result, of ample injections of warm water with claret into the rectum. It seems to be rapidly absorbed, and, he thought, answered one important indication, namely, the quick restoration of the fluid parts of the blood. He usually injects one to two pints of water with one to two glasses of wine, under a low pressure, slowly, the patient being in Sims's position; and the injection was repeated every three to four hours, with about half of the quantity, according to the state of the patient. Of course the rectum has to be emptied before the operation. Very often it is impracticable to feed the patient by the mouth, on account of the tendency to vomiting, and the hypodermic method of giving excitants alone does not fully meet the urgent indications.

On microscopical examination the tumor was found to be a myxo-sarcoma, with a number of small mucous cysts. Dr. Lange thought it had developed principally by proliferation of the cells of vessels, especially those of the adventitia, a kind of tumor which has been described as angiosarcoma. He regards the case as specially interesting because there was yet no evidence of a recurrence of the tumor. The patient made a speedy recovery, and there was left a scar more than fourteen inches long, but the tissues surrounding it were everywhere soft and movable. More than thirteen months had elapsed since the operation, and Dr. Lange thought that there need be no further apprehension with reference to return of the growth.

THE PRESIDENT referred to a case in which he removed an extensive sarcoma of the parotid gland, in 1870. The skin was involved, and the tumor extended inward to the region of the styloid process. It became a question whether the operation should not be abandoned on account of unexpected extent of the growth, and the additional fact that microscopical examination, made by Dr. Delafield after it was begun, revealed an undoubted fibro-sarcoma with an abundance of small cells. The operation, however, was completed, and the wound closed, but considerable inflammation followed, and the flaps sloughed, and perhaps to that occurrence the man owed his exemption from recurrence of the sarcoma. At all events he recovered, and within the last year Dr. Sands had seen him and found him perfectly well, without any signs of recurrence.

NECROTOMY OF THE INFERIOR DENTAL NERVE.

THE PRESIDENT presented Mr. B——, a healthy-looking man, æt. 64, who was brought to him by Dr. Gay, Feb. 24, 1878, on account of neuralgia of the right inferior dental nerve, from which he had suffered severely during the last two years. Occasionally, but rarely, pain had been felt in the infraorbital region. All the usual remedies had been employed without effect. He had consulted a distinguished neurologist in the city, who told him that the disease was syphilitic, and upon being informed that he had never had syphilis, the physician said there was nothing to be done, except to give the treatment appropriate for that disease. On March 1st ether was administered, and Dr. Sands divided the nerve according to Paravacini's method. He found it quite impossible to see the nerve, but succeeded in dividing it after having passed beneath it a small blunt-hook made for the purpose. In rehearsing the operation on the cadaver he found it quite easy to mistake the internal lateral ligament for the nerve. By applying the tip of the forefinger, however, to the process of bone overhang-

ing the foramen at which the nerve enters the canal, the error was readily avoided. April 1st. Considerable inflammation followed the operation, and some sloughing of connective tissue occurred in the wound. Patient was then annoyed by an abscess in the cheek, about an inch in front of the masseter, which discharged imperfectly into the mouth. The neuralgia disappeared immediately after the operation and had not returned. It was noted on May 14th that several abscesses had formed in the cheek after last date, April 1st, but the patient had been well and had experienced no inconvenience, except a slight stiffness of the jaw. He remained absolutely free from neuralgia, and was healthier than he had been for several years. On December 15, 1879, the patient was well. On Feb. 24, 1880, he said he had slight twinges of pain in the cheek, and slight pain in the lower part of the jaw. It was simply spasmodic in character and was of only trifling severity. The pain was in nearly the same spot as it was before the operation, but gave him no special inconvenience, and he was of the opinion that it was less severe than it was two or three months ago when it was felt for the first time after the nerve was divided.

The President remarked that the case was interesting as showing that a good result might be obtained without excision of the nerve. There was nothing found in the jaw to account for the pain. When he divided the nerve he attempted to tuck it down into the tissues beneath; but whether the effort was successful or not he was unable to say.

EXSECTION OF THE THIRD DIVISION OF THE FIFTH PAIR.

Dr. Herman Guleke reported a case of exsection of the third division of the fifth pair of nerves. Jacob Hoffman, æt. forty-seven, twenty-three years in the United States, and a 'longshoreman, was admitted to the German Hospital, Oct. 28, 1873, suffering from neuralgia in the face. His health had been good, no evidence of syphilis could be found. About twelve years ago, without any cause known to the patient, pain began in the right side of his face, having at first all the characteristics of toothache. He, therefore, had several teeth extracted, but without obtaining any relief. The frequency of the paroxysms of pain increased, and at last prevented the man from following his trade. The pain was located in the upper part of the cheek, corresponding to the os zygomaticum, which was swollen, and pressure on that point at once caused an attack. The pain was very severe, lasted from three to five minutes, and the paroxysm was repeated every ten or fifteen minutes, especially at night. Oft-repeated examinations failed to show that any other branch was involved. The only relief which the patient obtained was from the hypodermic use of morphine, about ℥ xx. Magendie's solution, giving him rest for half an hour; given by the mouth rest could be obtained for an hour and a half. Finding that the patient was not improving under this treatment and the use of iodide of potassium, etc., he proceeded, on the 7th of November, to exsect the zygomatic nerve. The incision was made along the edge of the bone, around the external corner of the orbit, the periosteum raised by a spatula, and, together with the cellular tissue of the orbit, pushed inward and the nerve exposed. In order to exsect a larger piece of the nerve and its branches he removed the larger portion of the body of the zygomatic bone, with the adherent portion of the nerve, about an inch in length. The wound was closed with sutures and ice applied.

November 8th. Patient did not sleep. The wound and the tissues around it were swollen. Ordered morphia and quinia.

November 9th. Patient slept about two hours. Some of the sutures removed.

November 10th. The remaining sutures were removed. Wound in the skin has closed, except in two places where considerable pus discharged. Eye and cheek swollen to some extent.

November 11th. Patient complained of pain, but was not able to say whether it was neuralgia or due to the wound.

November 12th. The pain has increased and is more like the neuralgic pain from which he suffered before the operation. In the evening the first neuralgic attack took place, which lasted about fifteen minutes. In the night he had two more attacks, but slept considerably.

November 14th. No attack.

November 15th. Patient has a chill and fever, and erysipelas developed around the wound, reached the scalp in two days, and faded on the 25th of November. On the same day the neuralgia appeared again, and attacked the patient frequently. On the 27th and 28th no pain, and the erysipelas had disappeared, the wound had closed, and the patient was discharged on the 5th of December without a recurrence up to that date.

On the 27th of March, 1874, the patient was again admitted, suffering from neuralgia, which was situated in the temporal region upon the right side, following closely the course of the auriculo-temporal nerve. The pain appeared every fifteen minutes, and finally was caused by touching the affected part, or by mastication. On the same day Dr. Guleke exsected about three-fourths of an inch from the affected nerve, but as soon as the effect of the chloroform had passed off, the neuralgia returned so severely that injection of morphia was necessary to control the pain. The attacks were frequent. The operation did not give any relief, and the patient asked for another. A deep-seated pain persisted in the temporal region, and in front and above the right ear.

On the 28th of April he proceeded to resect the third division of the trigeminus in the sphenomaxillary fossa. A circular incision was made, reaching from near the external meatus of the ear downward about an inch and a half, and curving up toward the inner edge of the rest of the os zygomaticum. Some fibres of the masseter muscle were cut, the arch of the zygomatic bone was cut from its base by forceps, and with the integument was turned upward a part of the coronoid process, first having detached the insertion of the temporal muscle. Reaching the external pterygoid muscle, he found it necessary to incise it, and caused thereby a severe venous hemorrhage, which, however, was finally controlled by the use of cold sponges. Following the base of the skull in the direction of the foramen ovale, at last the nerve was found, and a piece about one-fourth of an inch removed. The wound was closed by sutures. About 9 o'clock the patient had fever and a chill. The next morning the right side of the face and the wound were swollen. Ordered thirty grains of quinia.

On the 30th of April he had another attack of neuralgia. The pain was not quite so severe as before the operation, but had been changed to the frontal tubes, and could be caused by touching the upper lips and this part of the face—parts that never before seemed to be involved by the neuralgia—and the paroxysms were severe and frequent.

On the second day the attacks were less severe. On the fourth day severe attacks again, and deep in the temporal region. On the seventh day neuralgia in the frontal tubes. On the eighth day a slight attack, and then the pain seemed to disappear and the patient did not suffer from an attack until the 19th of May, and left the hospital on that day. Some months afterward the neuralgia returned, and quite as severely as before the operation. That result so discouraged Dr. Guleke that he did not propose further operation, although the reports of successes after division of all the branches of the fifth pair have been quite numerous. Dr. Shuppert, of New Orleans, reports a case where he succeeded, after operating twice on the second division and on the third division of the fifth pair, and tying the common carotid, and failed, by exsecting the facial nerve near the stylo-mastoid foramen, and five years after the last operation the neuralgia had not returned.

Dr. Guleke did not resort to stretching of the nerve before the exsection, because he had not heard sufficiently of it at that time, but at present so many reports of the success of the method had appeared that it should not be overlooked. However, the process of the treatment of these cases will remain doubtful so long as we are not enabled to make a diagnosis of neuritis and neuralgia of a central or peripheral lesion of the nerve.

Dr. T. M. Markoe opened the discussion upon the question involved in Dr. Guleke's communication, by suggesting, in view of the many cases of like character now collected, that the most important question to be settled with reference to these operations was whether or not the radical, very difficult and extremely dangerous operations, which have been performed in a considerable number of cases, offer the patient so much better chance of final cure than the less extensive operations, like that in the case cited by the President, that we were justified in resorting to them. He was not prepared to answer the question fully, but his own experience and observation, his personal experience, it was true, being limited to one case, inclined him to the opinion that perhaps the severer operations were not justifiable in most cases.

His own case was as follows: A young man had suffered very severely from inferior dental neuralgia for many years. The pain was limited strictly to the nerve and its branches, and he operated by the old method, using a small trephine and then a fine chisel, and finally exposed the nerve, raised it from its bed, and removed a piece about an inch in length. That was in April, 1861. The wound did perfectly well, the patient had only one or two partial paroxysms of pain in the first ten or twelve days. After that he was entirely relieved, and remained absolutely free from pain for a very considerable period. The nerve was examined microscopically and showed no pathological change. The patient remained free from pain until 1876, when he began to suffer from neuralgia in the infraorbital, and occasionally the pain extended to the supraorbital nerve. Another operation was performed, which consisted in opening the antrum, exposing the nerve, and following it back to the point where it enters the maxillary bone. In going along the groove in which the nerve laid, he found a pair of strong scissors to be the most convenient instrument he could use for removing the thin plate of bone.

Knowing that the posterior dental came off very close to the point at which the infraorbital nerve enters the deep bony canal, he endeavored, with the point of the scissors, to break up the nerve-trunk as far as possible beyond, hoping thereby to reach the point at which the posterior dental nerve was given off. Whether he succeeded in destroying the nerve at the point of junction or not, he was unable to determine. Some months after the operation the patient was almost entirely free from pain, suffering only occasional slight paroxysms, and most of the pain was in the supraorbital nerve. Since that date (1876) he had not heard anything concerning the case, but from the benefit which the patient received by the two operations, Dr. Markoe thought he would seek for a third one did the pain return in severity, and he certainly would be willing to undertake it.

Dr. Frank H. Hamilton referred to a plan of operating lately mentioned by Dr. Hodgen, of St. Louis, in cases of persistent infradental neuralgia. It was to bisect the nerve at its point of entrance, and then reaching the nerve from the outside by another opening, drag it out for the entire length.

Some years ago Dr. Hamilton trephined the inferior maxilla near the angle and removed a section of the inferior dental nerve, half or three-quarters of an inch in length, for the relief of a persistent neuralgia of that nerve. The man had complete exemption for about a year; but then the pain returned, was as severe as before the operation, and when he last heard from the patient he was still suffering.

Dr. Hamilton called attention to a case in which the President had performed an admirable operation, but with reference to which he had some suspicion that it had been reported incorrectly. It was a case in which the brachial plexus was removed for the relief of neuralgia that persisted after two amputations of the arm. It was reported as having been much relieved by the operation. The man subsequently came under Dr. Hamilton's care, when he said that as soon as the soreness of the wound had disappeared the pain returned with a severity equal to that before the operation, and that there was a certain aggravation, inasmuch as he had had distressing hyperæsthesia of the integument of the shoulder. The pain, however, was referred to the lower part of the upper third of the humerus. He was then taking large quantities of morphine. Dr. Hamilton amputated at the shoulder-joint and gave the patient temporary relief. The pain returned as soon as the cicatrization was complete, and was as severe as before.

During the attempt to cure the man of his opium habit he died. Three days after the morphine was removed entirely, he had two convulsions, fell into coma and died. No autopsy was obtained.

Six weeks were employed in gradual diminution of the morphine which had been used hypodermically and in enormous quantities.

The President stated in reply, that the case was reported by Dr. Seguin and himself, in a journal at that time published by Brown-Séquard, and the only portion of the paper written by himself was that in which the operation was described. He saw the patient a few times only at Dr. Seguin's request, and at his request performed the operation. He saw him while the wound was healing, and then knew that the neuralgia had returned, yet he thought Dr. Seguin's observations were carefully made. Perhaps the patient's statements were not altogether reliable, because he had been previously in confinement in an asylum, and it might be that his statements were not the same at all times. Ultimately he knew that the pain was as severe as before the operation.

Dr. J. C. Hutchison remarked that Dr. Hodgen's

operation consisted in passing a perforator through the alveolar process down into the cavity where the nerve lay, and he knew he had reached that cavity by the amount of hemorrhage that occurred, and then cut the nerve off with the perforator; then making an incision in front he dragged the nerve out as described.

He also referred to cases of resection of the nerves of the face which were interesting because of the variety of measures resorted to for the cure of the neuralgia.

The first patient was a miner, æt. forty five, who had always had excellent health, and had never had syphilis. The pain from which he suffered was confined to the lower jaw and the paroxysms were exceedingly severe. After a variety of expedients had been adopted, both local and general, he resorted to the operation described by Dr. Gross in a paper on neuralgia of the jaws, read before the American Medical Association in 1870. It consisted in turning back the soft parts and the periosteum, and removing, by means of cutting-pliers and a gouge, the alveolar process, and with it the nerve. That gave him complete relief for a year; sufficiently long to give opportunity to publish it in Hay's Journal as one of cure by that method. After a time, however, the pain returned, and a Boston surgeon removed a wisdom tooth and gave relief for a number of months. That operation was reported in the Boston Medical and Surgical Journal as one effecting a cure in a persistent case of neuralgia. A few months after, Dr. Hutchison saw the patient and he was again suffering as much as ever. The patient then went to California, and his suffering was so intense that he applied to a surgeon who trephined the bone, exposed the nerve, and removed about half an inch of it. Again he was relieved. A number of months later, however, the pain returned, was as severe as it had been at any time, and he again consulted Dr. Hutchison, who, having seen Paravacini's favorable reports of treatment of these neuralgias by ligation of the carotid artery, tied that vessel. The man was entirely relieved, and at the end of two weeks was perfectly well. That was in June, 1877, and by letter two years after the doctor had been informed that the pain had not returned.

The second patient was a man who had neuralgia of the superior maxillary nerve. It began in 1848, and in 1878 Dr. Hutchison saw him for the first time. During the thirty years he had had a variety of surgical experience. He had been operated upon by Dr. Allen, who made an incision across the forehead and with temporary relief. He was subsequently seen by Dr. Mott, who declined to do anything for him, and he was under Dr. Parker's treatment for some time without operation. He was finally seen by Dr. Liddell, of New York, who divided the nerve at the back part of the orbit, and gave him relief for a time. After two or three years he came under the treatment of Dr. Isaacs, who exposed the nerve and divided it, with temporary relief. Some years subsequently he came under Dr. Hutchison's observation, and he tied the common carotid, first upon the left and second upon the right side. The operation gave the patient no relief whatever. At the end of a month he determined to go into the patient's orbit again, and did so, opening up the tract in the bone for about an inch back from the edge of the orbit, and gouged away about an inch of the nerve. The operation gave the patient entire relief. A year after the operation he was perfectly well, and, as he was a resident of Brooklyn, it was fair to presume that he remained cured, as he had not appeared making complaint.

Dr. Lange remarked that, according to statistics, in about 3¼ per cent. of all cases in which the nerve was removed the cure was perfect.

The President regarded Paravacini's operation as preferable to cutting through the tissues externally, and trephining the bone. It was not an easy operation to perform upon the living subject, because, as he had found in the two cases in which he had operated in that manner, it was not practicable to expose any considerable portion of the nerve. In Mr. B.'s case he did not see the nerve. Should he have occasion to perform the operation again, he would provide himself with an instrument resembling a miniature lithotrite, by which the nerve could be seized previously to dividing it, and then it could be dragged out. When the nerve was raised on a hook and then divided, it escaped seizure.

The external operation had, to him, always seemed severe, and he had knowledge of one case in which it proved fatal. The operation was performed by a distinguished surgeon in 1869, upon a man 60 years of age, and portions of the inferior dental and gustatory nerves were removed. The operation was not marked by any peculiarity except that there was very free oozing. It was done at 1 P.M. Exactly twelve hours after the operation Dr. Sands, who was then partner of the surgeon who operated, was summoned in great haste, and found the patient dying of suffocation. The windpipe was *promptly* opened, but the relief came too late, and the man fell backward and ceased to breathe, only three or four respiratory movements being made after the trachea was opened. Immediately after the death of the patient he ran his finger up through the rima glottidis, where he was able to appreciate great tumefaction of the tissues at the upper part of the larynx.

Autopsy showed degeneration of the muscular tissue of the heart, and it was thought that death was, perhaps, accelerated by that condition.

DIVISION OF THE GUSTATORY NERVES.

In this connection The President referred to a case in which he divided the gustatory nerves. It had the following history: John W——, æt. 71, consulted him October 18, 1877, for a disease of the tongue which appeared about six months before, and for which he had been treated with caustics without relief. On examination, the anterior third of the tongue was found indurated by cancerous deposit, and the under surface, as well as the mucous membrane investing the floor of the mouth and the gums, the seat of superficial ulceration. The organ was almost immovable, and excessively painful, the pain occurring in paroxysms, and preventing sleep. Salivation profuse and annoying. No enlargement of glands. Radical treatment was suggested, but not urged, and on October 18th, assisted by Dr. Oakley, of Elizabeth, N. J., he divided the gustatory nerves according to Moore's method, using Whitehead's gag to open the mouth. Little bleeding attended the operation, after which, and before the patient had quite recovered from the effects of ether, he endeavored to test the sensibility of the tongue with the point of a needle. The left half was quite insensitive, but the patient's testimony was contradictory in regard to the right side, leaving Dr. Sands somewhat doubtful whether he had succeeded in dividing the nerve. The patient had no trouble after the operation beyond local soreness; no unusual quan-

tity of saliva produced; spoke better, and there was no pain in the tongue.

October 23d.—Dr. Oakley wrote that there was no sensation in the left side of the tongue, but he thought there was upon the right.

November 2d.—About one week ago patient began to complain of pain in the right side of the tongue, and on the same side of the face, and slightly in the neck. Finding the right side of the tongue sensitive he again attempted to divide the nerve, and doubtless succeeded, as the tongue showed no sensibility immediately after the operation.

November 16th.—Since last operation patient has been free from pain. Tongue not sensitive when pricked with a needle.

A note from Dr. Oakley, dated May 11, 1878, stated that the patient died March 12th of exhaustion. From the time of the second operation until his death he suffered little or no pain, the section of the nerves having removed the most distressing features of the disease, namely, pain and salivation.

Dr. Hutchison asked regarding the extent to which nerves had been reproduced after neurotomy.

Dr. Lange referred to observations made by Wagner, who reported that they had been reproduced to the extent of an inch or more.

Dr. L. A. Stimson referred to experiments of the French physiologist, Legros, who determined that nerves going to the spleens of mice might be reproduced to the extent of 1 cm.

The President completed the history of Dr. Scribner's case, reported at the stated meeting held January 27th, by reading the following report:

Examination of portions of the stomach, large and small intestines, from the body of Dr. J. W. Scribner, gave the following result:

Upon the greater curvature of the stomach, and about 5 ctm. from the pylorus, was a shallow ulcer 3.5 ctm. long by 1.5 ctm. wide, in whose thickened edges lay several hard nodules, the largest about 1.5 ctm. in diameter. At this point, and for a considerable distance on either side, the stomach was bound to the transverse colon, and to other adjacent parts, by adhesions and by a congeries of irregular white nodular masses resembling those found at the borders of the ulcer, the largest being about 2 ctm. in diameter. The omentum, which at its broadest portion measured 16 ctm., was firmly bound to the transverse colon, was greatly thickened, and its surface thickly studded with larger and smaller irregular nodules. Similar nodules were found everywhere within the thickened omentum, which at some points measured 8 ctm. from front to back. Irregularly scattered over a considerable portion of the surface of the parts of the intestines sent for examination; small irregular elevations were found; most about and in the vicinity of the cæcum. The surface of the appendices epiploicæ were also, in many cases, rough and uneven. The lower portion of the descending colon was narrow, having a diameter of about 1.5 ctm.; the gut gradually enlarged upward, having, at the seat of operation, about its normal calibre, as had also the transverse and ascending colon and the small attached portion of the ileum. No stricture was found at any point, the only narrowing being at the lower portion of the descending colon.

The tumors on the edges of the ulcer, and below and behind the stomach and the thickened omentum, as well as the small scattered elevations over the peritoneal surface, had the structure of carcinoma. The post-mortem changes and the action of the diluted carbolic acid prevented the determination of the precise conditions of the surface of the ulcer. In accordance with those facts, the anatomical diagnosis would be: Primary carcinoma of the stomach, with secondary diffuse carcinoma of omentum and peritoneum; slight narrowing of the lower portion of the descending colon.

Signed, T. Mitchell Prudden.

SPONTANEOUS GANGRENE OF THE FOOT.

Dr. George A. Peters presented a specimen, accompanied by the following history:

Chas. F. Heiss, æt. 26; single; a butcher, and a native of U. S.; was admitted to the New York Hospital Feb. 7, 1880. Family history good. Personal history: Denies venereal; has never had scarlet fever or rheumatism; gives no history of traumatism. Three weeks ago was suddenly taken with a chill. On the following day he had high fever, which lasted three days. On the evening of the fourth day he went to bed feeling perfectly well, and did not awake until usual time in the morning, when he noticed that his left leg below the knee was stiff and numb, and upon looking at limb found the whole leg, from a point about three inches below knee, was perfectly white, cold to the touch, and entirely destitute of sensation. Soon after he felt pain in knee, which became very severe and lasted, without intermission, until five days ago, when it almost entirely ceased. Since the first morning the leg has steadily changed in color, until at present time the foot, ankle, and about one-third of leg, are perfectly black. The only treatment received has been quinine sulph. in moderate doses, and hot bottles about limb. Warmth and color have returned to limb for about three inches below original point. Here a line of demarcation is plainly visible. Patient has lost flesh and strength.

On admission he was in fair general condition, his face slightly pallid and anxious, and there was slight increase in pulsation in neck. Præcordial area somewhat enlarged. The apex of the heart was beating in the fifth intercostal space. The whole foot and lower quarter of leg were black, swollen, and firm to touch. Discoloration extended on outer aspect in shape of triangular prolongation as far as middle, on interior aspect only to lower quarter. Line of demarcation clearly drawn. The skin above was of dull red color as high as tibial tubercle; above this it was normal. The radial pulsation was good; arteries slightly thickened. Good pulsation in right femoral; none in the left. No popliteal pulsation on left side. Hepatic and splenic area of percussion dulness increased.

Auscultation reveals soft systolic murmur heard over aortic orifice.

Feb. 12th. Formation of new line of demarcation one and a half inches above old.

Feb. 16th. Line of separation formed.

Treatment.—General: brandy ℥ ss. every two hours; quiniæ sulph. grs. x. every four hours. Local: yeast and charcoal poultices to leg at and above line of demarcation.

Feb. 24th. Limb amputated at the knee-joint. The operation was nearly bloodless. The cutaneous temperature of the thigh was apparently good.

The specimen was prepared by the pathologist Dr. Geo. L. Peabody, who gave the following report:

On the posterior surface of the leg, between the superficial and deep muscles, there extends a cavity lined by gray and flabby granulations, from the line

of demarcation upward to the lower border of the popliteus muscle. In this cavity the vessels are lying upon the anterior wall.

The popliteal artery and post tibial to the point of origin of the peroneal are filled by a firm, partly decolorized thrombus, which ceases abruptly at the origin of the peroneal artery, but extends about half an inch into the anterior tibial. Below these points all three arteries are empty and appear healthy to the naked eye. The veins are all distended by coagula which are rather more recent than those in the arteries.

I have not thought it desirable to remove the thrombi until you have seen them, and am therefore unable to testify as to the condition of the thrombosed vessels.

The President remarked that the special point of interest in the specimen was the uncertainty experienced in attempting to diagnosticate between thrombosis and embolism of an artery, a point which was sometimes very difficult, if not impossible to decide, even with careful examination.

He then referred to a case which occurred in the practice of Dr. Conley. The patient was a woman seventy-one years old, who was suddenly taken with severe pain in the leg. Gangrene of the foot appeared and extended upward to within four inches of the knee-joint. It was thought that she had embolism of the popliteal artery. Circular amputation was performed at the knee-joint, and no arterial blood flowed on making section of the limb. The patient died from extension of the gangrene. Subsequent examinations showed embolism, although there was no evidence of valvular disease of the heart. The arteries were atheromatous.

About a year ago a man 60 years of age came under his observation, who was known to have valvular disease of the heart. He was suddenly attacked by pain in the leg, gangrene followed, and it was supposed to depend upon embolism of the popliteal artery. The limb was amputated at the junction of the middle and lower thirds of the thigh, and all the large vessels were found obliterated except the profunda. The patient was in a bad general condition at the time the operation was performed, yet he lived several weeks and finally died, the gangrene having extended *four* inches beyond the line of section. Examination of the arteries showed no embolus, but the femoral and the popliteal down to the tibials were filled completely by a thrombus having a uniform consistency.

In that case, as in the case reported by Dr. Peters, post-mortem showed that we were liable to be deceived regarding the cause of the gangrene. Moreover, he knew of no case of recovery after amputation under these circumstances, except the single one reported by Dr. Sayre. Gangrene of the stump usually followed and killed the patient.

Dr. Peters remarked that the condition of the skin in the flaps in his case indicated extension of the gangrene.

Dr. Lange referred to a case in which he amputated the thigh on account of gangrene of the foot occurring in a man 70 years of age. From the profunda downward all the arteries were completely obstructed. There was no suppuration, and the man made the most rapid recovery he had ever seen. The patient had had syphilis, had had several attacks of abscess of the joints, and he therefore elected to amputate through the thigh, because it seemed probable that the branches of the profunda were free, and might nourish the remaining parts. There was complete obstruction of the femoral. The amputation was done far above the line of gangrene. In the opposite thigh he had what was supposed to be the same kind of obstruction of the femoral without any trouble in consequence. He regarded it as a case of chronic endarteritis syphilitica.

Dr. L. A. Stimson saw a case some time ago in which amputation was done at the middle of the thigh for advancing gangrene. There was no hemorrhage. There was complete obstruction of the common iliac artery by thrombus, also the femoral for its entire length, and the arteries of the legs as well as the veins.

Dr. J. G. Curtis asked if thrombi were found extending into the small branches of both the arteries and the veins?

Dr. Stimson replied that they extended into the smaller veins as far as he traced them, and his impression was that they extended also into the small arteries.

Dr. J. C. Hutchison, a short time ago, saw a lady who was suddenly seized with pain in the knee, followed by numbness of the leg and a blanched appearance of the skin. He supposed she had embolism. There was an aortic murmur, not marked, however, but there was evidence of a large, weak heart. The second time he saw her there was no pulsation in either the anterior or posterior tibial artery. Subsequently the numbness somewhat subsided, but he had not been able since to find pulsation in the tibials. All the numbness disappeared within a few days, the pain subsided, and the limb seemed to be quite well.

Ligation of Arteries not Followed by Formation of Clot.

Dr. L. A. Stimson presented a specimen which illustrated, as had already been shown, the possible tolerance which the tissues gave to a carbolized silk ligature applied to an artery and the total absence of clot upon the proximal side. The specimen was a popliteal artery that had been ligated three months previously, after a supracondyloid amputation.

The operation was done antiseptically, the ends of the ligature cut short, and the wound healed promptly. The patient died three months afterward, from tumor in the chest, and the specimen was obtained at post-mortem. The calibre of the vessel diminished from above downward to the ligature, but there was no sign whatever of clot within it. The walls of the vessel were thrown into folds. There were no branches anywhere near the point of occlusion.

Dr. Stimson also presented, in behalf of Dr. Keyes, a popliteal artery that was removed post-mortem; death having occurred thirty-six hours after the vessel was ligated. The ligature was in place and there was no clot within it.

The absence of clot where the vessel was healed showed that clot was not necessary to perfect closure of the vessel, a point that seemed to be thoroughly established, although still questioned in some quarters. Dr. Stimson then referred to cases already reported. Ferguson had reported a case in which the femoral was ligated in the middle of the thigh. The patient died seventeen days after the operation, and not the slightest clot was found within the vessel.

Holmes had reported a case in which he ligated the carotid and the subclavian, and at post-mortem, eight weeks after the operation, the subclavian was

found closed by a diaphragm of connective tissue a quarter of an inch in thickness, but without clot in the vessel. In the carotid a ridge marked the seat of the ligature, and the author stated that the lumen of the vessel was closed by a very thin layer of non-adherent coagulum. The ligature was carbolized by drawing it through carbolized wax, 1 to 5.

The point which Dr. Stimson made was that the presence of an internal clot was not necessary to the occlusion of a vessel. Cases, however, had been recorded, in which clot had been found extending from the ligature to a large neighboring branch.

The President remarked that that was true, as had been shown by the specimens and the cases quoted; but at the same time it was known that an internal clot often existed which it might guard against the occurrence of hemorrhage. He then referred to an experiment which he performed of tying the carotid of a horse, and the specimen showed that the only thing which prevented hemorrhage was the presence of well-formed coagula on both the proximal and distal side of the ligature. He also referred to a case occurring in the New York Hospital, in which Dr. Willard Parker ligated the carotid, the subclavian, and the vertebral, and clots formed both upon the proximal and the distal sides in each artery.

Dr. Stimson thought his specimens might possibly throw some light upon the different results obtained, under apparently the same circumstances, after ligating vessels for the cure of aneurism.

The President remarked that it was a singular circumstance that ligation of the external carotid artery, which, anatomically speaking, was the most unfavorable for the application of a ligature, was almost uniformly successful. There the occlusion must take place, either by the formation of a clot or by the end becoming buried in plastic matter which surrounded it.

DECALCIFIED BONE AS DRAINAGE-TUBES.

Dr. Lange exhibited a specimen of decalcified bone to be used as a drainage-tube. He remarked that Neuber had demonstrated that the material is not absorbed at all if surrounded by blood, and cited illustrative cases. The specimen was prepared by drilling a piece of ox bone, decalcifying it in dilute muriatic acid, 1 to 2 of water, then carbolizing it in a five per cent. solution of carbolic acid, then soaking it in alcohol, and last in carbolized oil, 1 to 10.

The Society then adjourned.

KENTUCKY STATE MEDICAL SOCIETY.

Twenty-fifth Annual Meeting, held in Lexington, May 19, 20, and 21, 1880.

(Special Report for The Medical Record.)

Wednesday, May 19—First Day.

The Society met, pursuant to adjournment, at Meloeon Hall, Lexington, at 3 o'clock P.M., and was called to order by the President, Dr. R. W. Dunlap. Prayer was offered by Rev. Dr Bartlett; and Dr. W. O. Bullock, Chairman of Com. of Arrangements delivered an appropriate address of welcome.

The remaining afternoon session was devoted to the appointment and announcement of committees, and the enrolling of new members.

Second Day.

EXCISION OF ELBOW JOINT.

Dr. James M. Holloway, of Louisville, exhibited photographs illustrating a case of excision of the elbow joint, the operation having been performed in 1876. For the last two years the man has performed full duty as a farm laborer, and during the last winter has been employed in hauling hay and depositing it into the lofts of stables. He possesses power in the arm equal to that of its fellow, and is able not only to flex the forearm upon the arm, but has perfect pronation and supination. When the operation was performed he was the subject of consecutive syphilis. This complication has in no perceptible manner interfered with his progress.

EXTENSIVE NÆVUS AND CERVICAL LYMPHOMATA.

Dr. Holloway also exhibited a photograph of a rare and unique specimen of extensive congenital venous nævus, involving the arm and forearm of a young lady. No effort had as yet been made to excise the tumor.

Dr. Holloway also reported a case of cervical lymphomata, operated upon by himself, in March last, and presented photographs of the patient before and after the operation. He also exhibited the enlarged glands which were removed. They were fifty-three in number, varying in size from that of a marble to that of a hen's egg. All of the important structures upon that side of the neck were exposed, the fascia having been dissected away as upon the cadaver. The boy, aged about 18 years, made a good recovery, and there seems to be no tendency to the disease in the glands of the neck or other parts of the body.

MANAGEMENT OF PROCIDENTIA UTERI WITH RECTOCELE.

Dr. W. H. Wathen, of Louisville, read a paper, with report of case, on the Management of Procidentia Uteri with Rectocele, Cystocele, and Lacerated Perineum. In the case reported he had performed two operations; the first by amputating the cervix with his serrated scissors and compound terraculum, after which the intra- and extra-cervical mucous membranes were united after the method of Hegor by the introduction of ten interrupted silver sutures. The uterus, which measured 5¼ inches before the operation, had diminished within four weeks to 2⅝ inches in depth. The second operation was performed four weeks subsequently, and was directed to restoration of the perineum. The surface was denuded up the posterior vaginal wall to the crest of the rectocele, and the edges were united after the method of Emmet by the interrupted silver suture. The result was altogether satisfactory.

The paper was ably discussed by Dr. Thad. A. Reamy, of Cincinnati, upon invitation of the President. Dr. Reamy did not approve the indiscriminate amputation of the corvix uteri in cases of procidentia, and advocated the use of the simplest instruments possible in performing the operation. He gave an account of several cases in which after reduction of the uterus he had operated upon the vagina so as to produce narrowing of its posterior wall, and thus had secured excellent results. He dwelt with lucid emphasis upon the important function of the perineal body in its relation to the uterus and vagina.

GASTROTOMY IN EXTRA-UTERINE PREGNANCY.

Dr. W. O. Roberts, of Louisville, read a report of a case in which he had performed gastrotomy and removed a dead fœtus near the sixth month of abdominal pregnancy, followed by recovery of the patient. A few days before the operation the sac had opened into the bowel, and the contents so markedly characteristic as to odor were discharged per rectum. The case elicited much interest in view of the extreme degree of exhaustion to which the patient had been reduced, and the high degree of temperature (103) at the time of operation.

Antiseptic precautions were observed with great care; the drainage tube was removed on the fifth day, and the placenta came away on the eighth day. Twenty days have now elapsed since the operation, and convalescence is established in a most satisfactory manner.

The report of this case was received with marked attention, and a very general discussion of the subject was elicited.

THE MANAGEMENT OF ORTHOPÆDIC CASES.

Dr. V. P. Gibney, of New York, read by invitation a paper on the Management of Orthopædic Cases. This paper treated of the general principles to be kept constantly in mind in the management of cases of Pott's disease in its different stages and localities, of lateral curvature of the spine, hip disease, a term which he deemed unfortunate since it indicated nothing as to pathology, and club foot. The true hip disease, he thought, should be called diaphyso-epiphysitis, or articular ostitis of the hip, inasmuch as it began in the great majority of cases as a central bone disease, and in one or more of the centres of ossification. He did not believe that in such cases any *absolutely perfect* results were obtained by any plan of treatment known to the profession. Our aim should be to get the best possible results, giving the family to understand that a joint to some extent crippled must inevitably follow. He preferred the crutches and high shoe for treating this disease.

In the management of club-foot, as well as all the other ailments treated in his paper, Dr. Gibney insisted that time was the all-important element, *i. e.*, the surgeon must anticipate a prolonged course of treatment. The paper was ordered to be published by the Society.

Dr. J. M. Letcher, of Richmond, read a carefully prepared paper upon the most recent views of the pathology and treatment of typhoid fever.

The following officers were elected for the ensuing year: *President*, Dr. L. B. Todd, Lexington; *Vice Presidents*, Dr. J. P. Thomas, Pembroke, Dr. J. H. Letcher, Henderson; *Rec. Secretary*, Dr. L. S. McMurtry, Danville; *Treasurer*, Dr. John D. Neet, Versailles.

Third Day.

SYPHILITIC IRITIS.

Dr. Wm. Cheatham read a paper on Syphilitic Iritis. After reviewing the most important features of the clinical history of this manifestation of syphilis, he advocated the use of atropia. He said the most important indication of treatment was the prevention of posterior synechia, and the breaking up of this result when formed. He recommended to general practitioners the use of sulphate of atropia in all inflammations of the globe of the eye, since no risks are incurred by its use, and much danger avoided.

RESECTION OF JOINTS.

Dr. J. W. Lewis, of Georgetown, read a report upon resections of the joints of the extremities, and gave in detail the statistics of conservative surgery as applied to the several joints.

A very handsome banquet was given the members of the Society and its guests, at the Phœnix Hotel, by the physicians and citizens of Lexington, at which the following toasts were offered: "Our Commonwealth—Prof. Yandell; "Politically, our Commonwealth—Our Governor, Hon. Lyndon B. Blackburn, Secretary of State; "The Kentucky State Medical Society," by Prof. D. W. Yandell, M.D., Louisville. "Our Guests," by Prof. T. A. Reamy, M.D., Cincinnati. "Memories of 'Old Transylvania,'" by Dr. A. S. Allen, Lexington. "Our Medical Schools—Like the mills of the Gods, they grind slowly but exceeding fine," by Prof. J. T. Whittaker, M.D., Cincinnati. "The Medical Journals—May they put forth their leaves only for the healing of the Nations," by Prof. R. O. Cowling, M.D., Louisville. "The Law," by Hon. Wm. Preston, Lexington. "Our Literary Institutions—the Foster Mother of the Profession," by Prof. J. K. Patterson, Lexington. "Our Medical Heroes," by Dr. L. S. McMurtry, Danville.

After the reports of special and standing committees, the Society adjourned to hold its next annual meeting in Lexington, on the first Tuesday in May, 1881.

Correspondence.

PASSAGE OF THE STATE BOARD OF HEALTH BILL.

Power of the Medical Profession in Legislation and Public Affairs.

To the Editor of The Medical Record.

Sir:—In a recent editorial in the Medical Record, you define, in well chosen words, the duty of the medical profession in its relations to the State, and assert, with proper emphasis, "that the profession must, for its own protection, take a more prominent part in public affairs and legislation." The position taken in that paper will meet the approval of every intelligent physician.

The passage of the State Board of Health Bill by the New York Legislature illustrates the influence which the medical profession can exert in legislation, and in public affairs, when that influence is properly exercised and concentrated. The details of the plan of procedure by which this hitherto objectionable and oft-defeated measure was carried quietly through both Houses is worthy of record.

By the action of the National Board of Health it became my duty to endeavor to secure a State Board of Health for New York. On conferring with the friends of the measure as to the course to be pursued, it was determined to rely upon the medical profession of this State for the necessary influence to secure the requisite vote in each House to pass the bill. In order to render that influence effective, and still not take any individual physician from his home, it was decided to adopt the following plan, which was accordingly carried into effect. Immediately

after the election last fall, the name and post-office address of every member elect was obtained. With the aid of the Transactions of the State Medical Society it was not difficult to locate an influential physician in the immediate neighborhood of each elected member. Correspondence was immediately opened with these medical men, and each was requested to take an early opportunity to explain to his representative the necessity of establishing a State Board of Health, and to urge him to support such a measure if introduced into the legislature. The response to this appeal was unanimous and most cordial, and before the meeting of the legislature a large proportion of the members-elect had expressed themselves favorable to the measure. The next step was to secure the preparation of a proper bill, and this service was most acceptably performed by W. P. Prentice, Esq., Attorney to the New York Board of Health, who has great practical familiarity with sanitary laws and legislation. The bill was subsequently submitted to many sanitary authorities, by whom it was approved and recommended. The third step was to secure for the bill the personal care of a competent member of each House. Through the good offices of Dr. Theodore Dimon, of Auburn, Hon. Wm. B. Woodin consented to take charge of the bill in the Senate, and at the suggestion of Dr. James Anderson, Hon. Isaac I. Hayes, of New York City, introduced the bill into the Assembly.

The bill was introduced into both Houses during the first days of the session. Meantime petitions were circulated throughout the State, largely through the aid of the Sanitary Committee of the State Medical Society, of which Dr. J. G. Orton, of Binghamton, was the efficient Chairman. These petitions were very extensively signed by the leading citizens of each locality. A paper was also prepared by Dr. Elisha Harris, entitled "Care of Life and Health in the State of New York," and printed by Mrs. Elizabeth Thompson, who took a lively interest in the success of the effort. This pamphlet was extensively circulated by medical men in all parts of the State, and had the effect of enlisting the co-operation of thoughtful citizens, and favorable newspaper comments and editorials.

The bill was first brought forward in the Senate, having passed the Committee on Public Health with a slight, but necessary amendment. Senator Woodin, who, at his request, had been supplied, from time to time, with papers on sanitary subjects, had become thoroughly interested in the measure and in its success. Writing March 6th, he says: "I am deeply interested in the subject and become daily more so as I read and reflect. I have read far enough to become profoundly amazed at my own and the general ignorance that prevails in regard to the laws of life and health and sanitary science. I shall devote the coming week to the consideration of the bill, and shall succeed, I think, in securing every vote in the Senate. At any rate, I shall try to persuade each senator to record himself in favor of the bill." The bill encountered no opposition when under discussion, and on the final vote received but one negative to twenty-eight affirmative votes. Although this result surprised many, the friends of the bill anticipated it, partly because of the powerful advocacy of Senator Woodin, but chiefly because it was known that most of the senators had already fully canvassed the measure with their medical friends at home and were favorable to its passage.

Our experience in the Assembly was not unlike that in the Senate. Dr. Hayes was cordially and efficiently supported by Dr. Z. G. Bullock, member from Cattaraugus, and Dr. A. P. Craftas, member from Wayne. Hon. James M. Husted, the leader of the House, also became a warm advocate of the bill, and in his usual happy manner brought it forward. When put upon its final passage it failed to receive a constitutional vote through a misunderstanding as to the identity of the bill. After a week's delay, during which the profession of the State freely communicated their wishes to their personal representative, the bill was again called up and passed by a vote of 82 to 6.

So the State Board of Health Bill became a law, much to the surprise of those who did not know the secret but all-controlling influence which governed the action of individual members of the Legislature. It was wholly the work of the medical profession of the State, each man acting in his own circle of influence *at home*. No medical man, or deputation of medical men, visited the capital to urge the bill through committees, or to button-hole individual members in its behalf. And yet the bill passed regularly, and with no unusual delay, through both houses, receiving but one negative vote in the Senate and but six negative votes in the Assembly. This result is the more remarkable when it is stated that such a bill has been regularly introduced into the Legislature for eight successive years, and has never before advanced to a final vote in either house.

This experience teaches that the medical profession, exerting its influence in its own proper, and, apparently, humble sphere, is a power in society and in the State capable of accomplishing the most radical reforms.

Yours respectfully,

STEPHEN SMITH.

NEW YORK, June 7, 1880.

CATHETERIZATION OF THE LARYNX.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The articles relating to the resuscitation of asphyxiated newly-born children, that have lately appeared in your journal, suggest to me the propriety of narrating an experience of some six weeks ago.

A rachitic child was brought to the clinic for advice. Upon examination I found the pressing trouble to be "laryngismus stridulous." The case being typical, I seized the opportunity to lecture upon the subject. In dwelling upon the conditions that might give rise to sudden attacks of suffocative dyspnœa, I depressed the tongue with the finger to examine the pharynx; it was, of course, a risky procedure, but justifiable under the circumstances; instantly laryngeal spasm was brought on. Thinking it would pass off as other seizures had done, I proceeded to direct the attention of the class to the special traits of the kind of dyspnœa then so strikingly being illustrated. Before I could conclude, it was evident that the spasm was too complete and prolonged to permit of breathing—ceasing its struggles, the child fell over unconscious, but there was no effort at breathing; with the relaxation of unconsciousness I had expected the spasm to end and automatic respiratory efforts to continue, but not so; the spasm had ceased, but so had life, at least respiratory life. The cold douche, shaking, etc., had been used, hoping to end the spasm, but they had failed. Artificial respiration was now the only hope. The child being small, the Schultz method was first tried thoroughly, but it was of no avail. The Marshall Hall and Sylvester methods

were then successively tried, but all failed. Several minutes had now passed since there had been any attempt at voluntary breathing—the eyes were fixed and glazed, the entire surface cold and cyanosed, the child, in fact, virtually dead. Taking the stethoscope and listening attentively, I found the heart beating at the rate of about 25 or 30 to the minute. Seeing that it was utterly useless to continue the external methods of artificial respiration, I called for a catheter, seizing the tongue with an artery forceps and drawing it well out, I passed it to an assistant, then taking the catheter handed me, a soft rubber instrument, I tried to enter the larynx, but I utterly failed, for the instrument was too yielding to be guided properly. Asking for a metal instrument, a No. 8 silver catheter was handed. Without the slightest difficulty I passed it well beyond the cords into the trachea below, the right hand held the instrument, while the index finger of the left held up the epiglottis and guided the point into the larynx. The heart was still acting but more slowly and feebly even than when the efforts at catheterism were begun. I now blew gently through the catheter, easily inflating the lungs. The assistant then compressed the thorax and abdomen, causing expiration. The alternate filling and emptying of the lungs was thus kept up, at proper intervals, until it had been resorted to some three or four times; still there was no attempt at voluntary respiration on the part of the child. It was evident though that the blood was being oxygenated, for the cyanosis gave place to the pinkish hue. This change of color was the first evidence that our efforts were meeting with success. At the close of the fourth or fifth artificial respiration, the first involuntary effort was made in the usual tremulous uncertain manner. Our measures were now conducted more gently. In a few minutes voluntary respiration was fully re-established, then the catheter was withdrawn.

The child made a complete recovery, and at the end of four weeks was discharged from the hospital. The rickets remained, but there had been no spasm of the larynx of any moment since the one that came so near proving fatal.

Catheterism of the larynx as a means of resuscitating the asphyxiated has been suggested from time to time, but I know of no case establishing its superiority so entirely as that which I here report. With a stiff instrument, the procedure is so simple and so much more certain than all other methods of exciting respiration, that it seems to me it should be given more prominence than it has hitherto enjoyed. My experience with the case in question proves its applicability to children, and some experiments made a few days ago upon the adult cadaver showed that it can be employed upon the adult.

These experiments were undertaken to test the difficulties of catheterization of the adult larynx. It was found that the operation was somewhat more difficult than in the infant, dependent upon the difference in the length of neck. This could be overcome, however, by thrusting up the larynx, as will be described.

The condition of unconsciousness would seem to be the most favorable to the proper performance of the operation. The condition, in fact, that exists in actual or impending asphyxia, such as the asphyxia of the new-born, of the drowned, of convulsions, of cases of opium or carbonic oxide poisoning—any case, in fact, in which the Schultz, Marshall Hall, or Sylvester methods of artificial respiration are called for. That it is greatly more certain than any of those methods, and, I may say, than any of their modifications, this case would seem to prove, and that it is not more difficult in properly instructed hands any one can test for himself. Again, let me say just here that it is greatly superior to any effort at filling the lungs by merely blowing into the child's mouth. Any one who has tried that method, and has seen how much air goes into the child's stomach and how little into its lungs, cannot doubt the force of the assertion. Touching the after-effects of catheterism of the larynx, I can only point to the fact that in the case narrated there was not a single ill consequence.

In conclusion let me recapitulate the details of the procedure.

In the adult or child with teeth, fix the jaws open by means of a cork, seize the tongue with a tenaculum or other instrument, draw it well out, and hand to an assistant. Pass the index finger of the left hand well down into the mouth, find the epiglottis, go beneath it, and place the finger over the laryngeal opening. Take a stiff catheter, No. 8 or No. 10, with the right hand, and using the left index finger in position as a guide, pass the instrument into the larynx. Be sure that the eyes of the instrument are well beyond the vocal cords. The assistant now extends the patient's arms above the head, the operator at the same time blowing up the lungs through the catheter. The arms are next brought down, and expiration accomplished by compressing the abdomen and chest. A respiratory act is thus accomplished. The procedure is continued with regularity, so as to simulate as nearly as possible the normal respiratory interval.

The extension of the arms above the head during the filling of the lungs through the catheter is more important, I should think, in the adult than in the infant.

As has been intimated, catheterism of the adult larynx is somewhat more difficult than the same operation with the infant larynx, the chief difficulty being the greater depth at which the opening to the adult larynx is situated. This can be overcome by letting some one seize the larynx from the outside and thrust it up. In that way the opening is brought in easy reach of the index finger in the pharynx, when the catheter can be readily passed.

W. M. POLK, M.D.

N. Y., May 27, 1880.

CYSTOTOMY FOR CYSTITIS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Permit me to correct an error which I made in my article on "Cystotomy," published in your last week's issue. Dr. Howe has since informed me that he only introduced a speculum into the bladder in his cases after the dilatation of the prostate had been completed by other means, and then only for the purpose of examining the diseased mucous membrane. Moreover, to add that in his last case (No. 30) the relief of the sufferings of the patient was very marked.

Yours very truly,

R. F. WEIR, M.D.

NEW YORK, June 14, 1880.

THE JERSEY CITY CHARITY HOSPITAL.—Severe criticisms are appearing upon the unhygienic condition of this hospital. It is stated that it is old, badly located, badly built, and badly sewered. No excessive mortality, however, has occurred in it.

New Instruments.

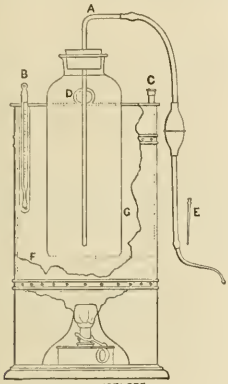
A NEW AURAL DOUCHE.

By C. R. UPSON, M.D.,

ATLANTA, GA.

Having frequent occasion, in the treatment of aural and nasal affections, to apply plain and medicated solutions to these parts, and appreciating the comfort to the patient—to say nothing of its benefits—of maintaining the solution used at a uniform temperature during the whole period of its application, I have devised an apparatus which fulfils this indication.

It consists essentially, as will be seen by the cut, of a glass reservoir of three pints capacity, which is placed in a copper water-bath, provided with a thermometer in its top—and this in turn is enclosed



CODMAN & SHURTLEFF, BOSTON.

in a sheet-iron jacket, containing a spirit-lamp—the tube of which is provided with an outer cylinder by which to regulate the size of the flame. The solution is forced from the reservoir by means of an atomizing bulb and tubing attached to a glass tube, passing through a rubber stopper, to the bottom of the vessel. The apparatus is provided with nozzles for applying the solution to the ear and posterior nares.

I would briefly call the attention of the profession to the advantages claimed for this apparatus: 1st. The solution, being contained in a *glass* reservoir, may be medicated with any remedial agent which the physician may elect. 2d. The solution may be maintained at any desired temperature—indicated by the thermometer in the top of the bath—by means of the spirit lamp. 3d. The capacity of the reservoir—three pints—being sufficient for any application which may be required at one sitting. 4th. It may be used—by attaching a longer piece of tubing and placing the apparatus in an elevated position—as a syphon. 5th. Its simplicity in construction, there being no complicated parts to become disarranged.

In addition to the uses already named—as an aural and nasal douche—it will be found a valuable means of applying solutions to the mucous membrane of the bladder, vagina, and even to the cavity of the uterus itself. I have for a considerable time been using this apparatus—though in a rude form—and have found it so useful that I have had a more perfect one made for me by Messrs Codman & Shurtleff, Instrument makers, Boston, Mass., who will supply such other members of the profession as may desire one.

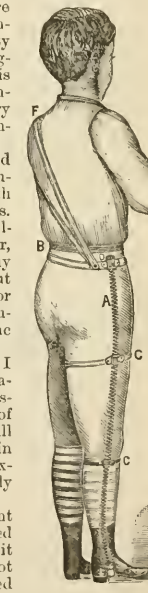
Since penning the above, a troublesome patient has impressed upon my mind the advisability of having the free use of both hands while syringing the ear, in order to secure which I have bored a second hole in the rubber stopper of the reservoir, through which I have inserted a tube (of the same size and shape as that which accompanies the douche) but a short distance, not allowing it to touch the solution. To the upper end of this tube I have attached an ordinary atomizing bulb with a sufficient length of tubing to allow of its resting upon the floor—thus enabling me to compress it with my foot.

APPARATUS FOR INVERSION OF THE FOOT.

By GREGORY DOYLE, M.D.,

SYRACUSE, N. Y.

In operating on talipes equino varus, I find it comparatively easy, after dividing the contracted tendons, to enable the patient to place his foot on the ground right side up, *i. e.*, with the entire sole facing downward. In the great majority of cases, however, there still remains that persistent inversion of the foot, a deformity nearly as unsightly as the original trouble. To remedy this inward rotation, I have constructed an instrument very clearly illustrated in the accompanying cut:



I have a patient two years old who has been using this instrument nearly three months with the most satisfactory results. While wearing it the little fellow can walk, run, sit down, or, in fact, get himself into any conceivable position without disarranging the instrument, or in any way hindering its complete constant eversion of the feet.

On the 27th of April last, I brought him before the Onondaga Medical Society and illustrated the practical working of the spiral rotating power. All the members who took part in the discussion concerning it expressed themselves as entirely satisfied with its workings.

In applying the instrument the belt is first to be fastened around the pelvis, and when it is necessary to rotate the foot *outward* the shoe may be turned

A. Spiral steel spring. B. Belt around the hips. C. C. Loops and straps to hold spring in position. D. Set-screw by which tension is regulated. E. Plate by which spring is fastened to shoe. F. Shoulder-strap to prevent belt rotating. Where springs are used on both limbs the shoulder-strap is unnecessary.

turned two or three times, as the case may require, and fastened on the foot. This has a decided and constant tendency to bring the foot into a normal position and retain it there. If a freer adjustment be desired it can be accomplished by the set-screw, D.

In cases of abnormal lateral mobility of the ankle, an ordinary ankle brace may be used in connection with the spring. The appliance works equally well where it is desired to *divert* the foot as in cases of talipes valgus or splay foot.

As will be seen by the above cut the subject is represented with the instrument applied over the wrapper and drawers, so that when he is fully dressed it is almost entirely hidden from view.

Children who have the congenital or acquired habit of walking with the toes turned in (popularly known as pigeon toed), can in a short time be educated with the spiral spring to walk properly.

I have applied this same rotating power to a case of long neck or torticollis with equally satisfactory results. The principle is the same, with a slight modification in construction.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from June 6 to June 12, 1880.

Bartholf, J. H., Capt. and Asst. Surgeon. Now on leave of absence; relieved from duty in Dept. of California, and to report to Comd'g Gen'l, Dept. of the Columbia, for assignment to duty. S. O. 123, A. G. O., June 4, 1880.

Reed, W., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for an extension of two months. S. O. 124, A. G. O., June 5, 1880.

Gray, Wm. W., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Point, Cal., and to return by steamer on May 31st to his proper station, Vancouver B'ks, W. T. S. O. 75, Div. Pacif. and Dept. Cal., May 26, 1880.

Medical Items and News.

Contagious Diseases — Weekly Statement. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 12, 1880.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small pox.	Yellow Fever.
June 5, 1880.	0	2	32	4	58	25	0	0
June 12, 1880.	2*	5	31	4	46	25	0	0

* Emigrants at Castle Garden.

The Diseases of Underwork.—We have heard a great deal about the diseases of overwork, and it would be interesting to see if something cannot be said now regarding the "diseases of underwork." That man is naturally a lazy animal is a proposition often made and never refuted. We have a great many lazy people even in this country. It is to be hoped that some enterprising pathologist may take a special study of these. He may find a new disease. There are certainly cases of adipose tissue and gastrosthenia. Who will be the first man to write a book on the subject?

Fuller Fund Prize.—At the annual meeting of the Rhode Island Medical Society, the Fuller Fund prize of two hundred dollars was awarded to Dr. C. V. Chapin, house physician at Bellevue Hospital, in this city, for the best essay on "The Sympathetic Nerve and its Relation to Disease."

Mr. W. U. McGuffey writes: In the Medical Record, No. 24, second column of the 678th page, seventeenth line from top of page, for "cardiac" read "cardiac." On the same page and column, twenty-third line from bottom of page, for "spasms and conditions" read "spasms and convulsions." Two lines below, for "emanations" read "emotions." In the twelfth line from the bottom, for "cadera" read "chorea."

Dr. Barstow, Medical Superintendent of Sanford Hall, Flushing, gave a reception at the asylum to the members of the Medical and Surgical Society on the afternoon and evening of June 12th. Besides the members of the Society, a number of distinguished invited guests was present. An elegant supper was served, and the evening was, as usual, a thoroughly enjoyable one to all present.

Errata.—For "veratrum," occurring twice on page 559 of the Record (May 22, 1880), read *veratrine*. The ointment was then made by prescription, five to twenty grains of veratrine to an ounce of lard, or simple ointment.

The Eleventh Annual Commencement of the New York Medical College for Women was a very successful affair. There were nine graduates, all but one being from Massachusetts or New York. The valedictory, by Dr. Christiana I. Fuence, was devoted to a comparison of women with men in the practice of the arts and professions. Professor Bolton, of Trinity College, read a "Historical Sketch of the Early Practice of Medicine by Women."

An Examination of Candidates for the U. S. Marine Hospital Service will take place at the Custom House, in this city, June 21st. The examining board consists of Dr. C. S. D. Fessenden, Surgeon-in-Charge at the Port of New York, and of Surgeons Doering, of Portland, and Miller, of Chicago. The examinations will last about a week. From twenty-five to thirty candidates have applied. The position competed for is that of Assistant-Surgeon, with a salary of $1,600 a year and quarters. There is said to be three or four vacancies.

An Orthopædic Hospital has been founded at Bologna, Italy, through the munificence of Professor Rizzoli. He has given $250,000 toward its establishment.

Books Received.

Pathogenetic Outlines of Drugs. By Heinicke. Translated by E. Tietze, M.D., Philadelphia. New York: Boericke & Tafel. 1880.

System of Medicine. Edited by J. Russell Reynolds, M.D., F.R.S., etc., with additions, etc., by Henry Hartshorne, A.M., M.D. Vol. III. Philadelphia: H. C. Lea's Son & Co. 1880.

Original Lectures.

ON VARIOUS FORMS OF FUNCTIONAL CARDIAC DISTURBANCES.

By BEVERLEY ROBINSON, M.D.,

LECTURER UPON CLINICAL MEDICINE AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

GENTLEMEN:—Functional or neurosal conditions of the heart differ essentially from those which are organic or inflammatory in their nature. In the one case we have no evident lesions when the heart is examined post-mortem, and in the others we have usually, if not always, some obvious change in valves, or orifices, or heart-walls. During life they differ, also, with structural diseases. Their symptoms are more variable, more painful and distressing frequently, and they are continually forcing themselves upon the patient's attention. About their importance no one can doubt, since they are frequently confounded with permanent lesions, and yet are themselves amenable to wise, careful, judicious treatment. Functional trouble of the heart may be temporary and passing, or it may be permanent in character. It may be part of a general nervous temperament, or it may be dominated by some purely accidental circumstance. It may be primary and essential, and then, so far as our knowledge to-day extends, seated in the cardiac ganglia. It may be of reflex origin, or dependent upon some remote disease of the genito-urinary system, especially in women. Such are those cases which are found with a prolapsed or displaced womb, or with an ovary the seat of chronic inflammatory change. Further, functional trouble of the heart may be closely allied, or connected with, all those different pathological changes as they affect the blood, the central nervous system, and the stomach. Finally, we have "irritable hearts"—hearts which are weary and worn, owing to the cares and anxieties of life, to long night-vigils, to overwork, both mental and physical. In this latter category we shall have to consider the hearts which have become irritable in men of the best type—in those who strive and struggle for their own and others' rights or happiness, and who are the prey, as it were, of their personal self-abnegation and sacrifice: such an one, at times, is the overworked and too conscientious family practitioner. Functional disturbance of the heart is marked by cardiac palpitations. These palpitations may be violent and accompanied with strong, rapid pulsations, or they may be moderate and conjoined with weak and slow beats of the radials. Almost always with an attack of cardiac palpitations, we have a lack of regularity or proper rhythmic succession in the cardiac sounds. Palpitations may be brought on by more or less physical exertion, as the fact of going upstairs, or lifting a weight of some magnitude. Again, they may be brought on by an incident of an emotional character, which has disturbed greatly the nerves which govern the heart's normal movements. Too often they come on without assignable cause and at times when one might least expect them. In the middle of the night a patient is frequently awakened from a peaceful sleep and is suddenly tormented with most distressing palpitations, and at the same time very gloomy forebodings. This condition is encountered particularly, however, with persons passed middle life, who have somewhat enlarged hearts and atheromatous arteries. They have, when they awake, an attack of true cardiac asthma. In searching for the proximate cause, we shall be able at times to affirm that it lies in a dyspeptic condition. The stomach is at fault, and when its deranged digestion is quiet and better ordered, the attacks of cardiac asthma are cured. You all know of the disease described by Graves and Basedow—of the three principal classes of symptoms: first, those which pertain to the prominent eyes; second, those belonging to the enlarged thyroid gland; third, those which are annexed to the overacting heart. In such patients there is no counting the pulse accurately with the fingers at times, so fast does it go. Well, this disease is by some located in the sympathetic system, and it is this location, doubtless, which explains the rapid cardiac contractions. Of course, all heart trouble in this disease is not purely functional, for we find in its advanced stages that the heart becomes enlarged—how much owing to continued overaction, I am not wholly prepared to say. In an analogous category with Graves's disease come those murmurs at the apex, and rapid, irregular beats of the heart which are met with in chorea. We can but attribute these symptoms to the want of synchronism about contraction of the intrinsic cardiac fibres, and particularly of the musculi papillares. And now I wish to draw special attention to the condition known as "irritable heart." This name was first given to it in our late civil war, by Prof. Da Costa, of Philadelphia, and to those who wish an interesting and highly scientific consideration of an important subject, I refer them with strong emphasis to his writings in the United States Sanitary Commission Reports, 1867, in the *Am. Jour. Med. Sciences*, 1871, and in the Toner Lectures for 1874.

Such reading will be very profitable, for it will be noted and acquired that what was a frequent form of disease in the army, owing to overmarching, to diarrhœa, to fevers, is also becoming frequent in civil life, owing to tobacco, tea-drinking, sexual excesses, and inordinate physical exercise in the way of dancing, rowing, and baseball. Under this name is included what Fothergill has described as "hyperæsthesia" and "sub-paralysis" of the heart. This affection is marked by irregularity of the cardiac rhythm, overaction of its movement, pain in the precordial region, and a feeling of faintness. In the milder forms rest will, in a brief period, greatly ameliorate this condition. In aggravated cases it renders the patient unfit for the routine duties of business or professional life, and remedies affect it favorably only by very slow degrees. Upon more than one occasion hypertrophy of the cardiac walls was evident both before and after death. Never thus far, however, have either the muscular or nervous fibres been found degenerated. During life the heart beats very rapidly, the impulse is more diffuse, though not perhaps increased always in force, and there is a moderate blowing murmur covering the first normal sound, and heard with greatest intensity at the apex. This is not invariably true, however, as the first sound is at times only more abrupt than usual, but is wholly free from the presence of a murmur.

The second sound is clear, but, according to Fothergill, not as markedly so as in a dilated heart. There is almost invariably a feeling of oppression around the precordia, and the brain is apt to be attacked with vertiginous sensations. The patients are taken occasionally with sudden and painful palpitations, and it is no unusual thing for this to occur in the middle of the night. Sleep is at times much

disturbed and these patients are unusually restless. They cannot lie on the left side on account of the increased pain caused by this decubitus. There is evidence of cardiac disturbance in the very frequent and depressible pulse. Upon the slightest exertion, the from relatively quiet and tranquil, will become agitated and extremely rapid and it is not remarkable to see it mount to 120 or 140 beats per minute.

The extremities perspire easily and have a cold, clammy feeling, which is an additional proof of general nervous prostration. These patients are at times affected with severe dyspnœa, and yet, when we count the number of respirations, we do not find them increased so as to be above the normal. It is a remarkable circumstance that this affection has been many times confounded with pulmonary phthisis. I can understand many reasons why, even after careful research, one might properly hesitate between it and hypertrophous dilatation—the more so, as irritable heart is often accompanied with or followed by this form of organic change. But it appears to me somewhat far-fetched, with the signs above given, that any one should be in aspect of consumptive carelessness. All physical signs, moreover, of lung disease are absent; and the irritative cough present, with the slight and interrupted spitting of small pellets of blood-stained mucus, are not sufficient properly to withdraw one's attention from the heart.

The prognosis of irritable heart is favorable if the whole disease consist of temporary exhaustion of the sympathetic; but if, in consequence of repeated overexertion, the heart becomes organically affected, then we have to do with an affection which is almost always prolonged and sometimes serious. Such cases are reported as having followed an affection of the uterus, and also the inveterate use of tobacco. Usually the signs of the resultant lesion are similar, viz.: there is extended impulse and increase of precordial dulness on percussion—both of which point to the existence of an enlarged heart. An analogous form of heart affection may be caused in individuals who have undergone very intense exertion without having previously been in training for it. Such an example is that of Clifford Allbutt, who has given a full account of his own experience in an article upon "The Effects of Overwork and Strain on the Heart, etc.," in *St. Geo. Hosp. Reports*, vol. v., p. 23. Dr. A. had made a very lofty ascent, and was about to go still farther and higher when he was taken suddenly with a stifling sensation and painful cardiac pulsations in the epigastric region. Unable to proceed, owing to the distressing sensations from which he suffered, he lay flat on his back for awhile and then, feeling better, attempted once more to continue his ascent on foot. The same painful feelings returned almost immediately, so that he was compelled to delay his onward march some time and send his companion in advance to secure lodgings for them during the night. Finally he was able to go on. When he again reached level ground his normal feelings returned, and that same evening he was able to eat his supper with appetite and go, without discomfort, to bed.

During the night, after several hours of sound sleep, he awakened with similar painful sensations to those he had experienced during his afternoon walk. In this instance there had evidently been over-distention and temporary debility of the muscular walls of the right ventricle, which had been brought on by an acute strain upon the heart strength. Overexertion, without preliminary training, here occasioned but passing dread, with intense oppression, while there can scarcely be a doubt that, under like circumstances, rapid death has been the frequent and sad result. We should bear in mind an example like this whilst remembering that heart disease can ordinarily be traced to the pre-existence of rheumatic fever, of scarlatina, typhoid, typhus, etc. Still, mechanical causes are at times equally injurious, and affections of the valves or cardiac walls may thus be occasioned. It is a singular fact that but little emphasis is laid upon these causes by the majority of English and French authorities. Even so accurate and complete an analyzer as Hope barely alludes to them, and such men as Jenner write, as late as 1870, only to deny their influence. Doubtless, as remarked by Allbutt, the practice of this distinguished clinician did not lead him in the way of encountering many such cases. In the view of Clifford Allbutt it is regrettable that, although so much has been published in regard to cardiac pathology, the character and mechanism of brute, the therapeutical bearings of numerous cases, this equally important subject has been almost completely overlooked. And yet certain occupations do undoubtedly give rise to organic cardiac disturbances. Heart disease among soldiers has been fully described by Myers in 1870. Peacock mentions it in a special manner as existing among those who work in tin and copper mines, and Da Costa among those who make excessive expiratory efforts, as glass-blowers and cornet-players. Most of you saw the lad I presented at this clinic only a few weeks since, who had already acquired considerable hypertrophy of heart, with obstinate recurrent attacks of hæmoptysis, due to nothing else than the continuous fatigue and strain in his trade. The gist of this matter has evidently been ascertained by Da Costa with that clearness and correctness of insight which stamp his observations. He shows conclusively, in his monograph on this subject, that it is not so much *interrupted* exercise which does damage to the heart, even if it be of violent nature, as it is the professions in which the circulation is constantly impeded or hurried. Of course it is not affirmed that violent games will not produce both functional disturbance and occasional organic difficulty—notably hypertrophous dilatation, for examples of the contrary are shown. Thus, among what are ordinary amusements with young people, such as dancing, rowing, base-ball, we find instances of functional trouble which finally pass into organic heart disease.

Still, when these latter could be vouched for, they have occurred first in those persons who were predisposed to have irritable heart, and second, among persons who had no let-up in their active amusements. With base-ball players Da Costa cites two cases of hypertrophous dilatation. But here again the injurious results followed almost continuous play, and not play that was interrupted during several days or weeks at a time.

In volume xviii. of "Ziemssen's Cyclopædia," Dr. A. Brayton Ball, of this city, has contributed an excellent article on "Physical Exercise," and under the division of "Results of Overexertion" shows that, so long as muscular exertion conforms to the law of rhythmic action, it develops the muscles and augments their strength; but, if the exertion become continuous, then it decreases their power, and finally leads to atrophy, or, worse still, to degeneration. Applying this to the heart, it is not difficult to appreciate that through overexertion we shall inevitably diminish the duration of cardiac repose by encroaching upon diastole through increased rapidity of action. Thus we approximate to a condition of almost

continuous work for this organ, which must occasion the same detriment to it as it does ultimately to any one of the purely voluntary muscles which is being constantly called upon after an analogous manner. Doubtless the heart is sooner and more injuriously affected among those who are poorly fed, breathe an impure atmosphere, and are victims of alcohol, than among those who suffer from no such pernicious circumstances. Dr. Ball makes a few forcible remarks against the senseless habit of long-distance walking which is so intensely the fashion of the moment. In it he finds a useless expenditure of reserve force, which can only be made with the certainty of causing future permanent injury to the contestants. According to this author, the best way probably to prevent bad consequences to health resulting from active physical exercise is to appoint a competent medical man in each one of our large institutions of learning, where there are many students, and, therefore, many who engage in outdoor sports, whose duty it shall be to examine each young man with respect to his physical condition. After this examination has been thoroughly made, only those of vigorous build, and who at the same time enjoy good health, shall be permitted to engage in games or contests for which just these attributes are essential, so that harm may not result from indulgence.

In regard to the treatment of all such cases of irritable heart, or of those in which debility has already shown itself by some dilatation, special importance must be attached to rest on the back; and with "heart-weary" people it is a great point gained to have them avoid just those professions which are calculated to increase their disease. Above all, let the thorough-going, typical, too rapid American be perfectly assured, as Da Costa remarks, that constant running to catch a boat or a train, or "bolting" all meals, is bound to injure his heart as much and more than the coats of his stomach. Sexual excesses are also a frequent cause of irritable heart, and functional disturbance thus caused is not the price paid only by men or women of profligate habits. Moral men—men whose duty to the state is properly shown by a vigorous and increasing family—are sufferers, and have become so by an apparent ignorance of the fact that because indulgence is not socially censurable, it is individually of possible injury to health. Such individuals (clergymen, farmers, lawyers, etc.) often owe their general lack of energy and bodily activity to irritable hearts thus occasioned. We all know many of the disastrous consequences which are the immediate outcome of drinking to excess. Among these none are more frequent than the weakened heart and soft, weak, rapid pulse of the steady drinker, or of one who frequently "makes a night of it." To some persons tobacco is relatively innocuous; to others it is a poison, even in mild and minute doses. To many, mild cigars are not injurious, but strong tobacco completely unnerves them. How many young men suffer cardiac palpitation which are attributable to no other cause? The close student is often just the one who is thus affected. After the excitement of examination is passed, then it commences to tell, and he can scarcely walk a block at a rapid pace without feeling his heart leap into his mouth. At night he hears his arteries throb, his heart beats in a very irregular manner, and sleep is prevented for several hours. To remedy this, whatever else be done, tobacco must be put aside for several months.

The green-tea drinkers of our mothers' and grandmothers' days were certainly more numerous than they are in our own day, and, I judge, must have had very irritable hearts. For even now, and when English breakfast tea is pre-eminently a lady's drink, still attacks of painful palpitations are common among them, and to remedy them we must adopt Fothergill's plan of prescribing *cocoa* as a beverage, with a doubting faith, however, lest they soon again relapse into their former pernicious habit of excessive tea-drinking. To show the influence of the mind over the action of the heart, Fothergill cites the case of a medical student who, when asked a question the answer to which required thought, had immediately a changed cardiac rhythm and intermissions of the pulse-beat. Whenever the answer was given without thought, the action of the heart remained undisturbed. We are all of us aware how much our heart-action is influenced by emotions or temporary excitement, but we are not all aware how much control of the cardiac centre may be acquired by an effort of will. The accomplished statesman is, however, able to control every utterance which indicates emotion, and this is, perhaps, as great a proof of regularizing heart-action as the others familiarly cited of the finished coquette or the winner at Creedmoor.

In his usual brilliant way, Fothergill touches the keynote of this matter in saying there are "stout-hearted" and "faint-hearted" people—those who can be relied upon in an emergency and those who cannot—those, in other words, who can control their hearts under circumstances of great excitement or impending danger, and those who then become powerless and useless.

There are many other causes of cardiac palpitations that we have not as yet alluded to. Among the frequently encountered are plethora, anæmia, dyspepsia, and gout. We have already seen that an overtaxed heart becomes irritable. So in a certain way do we find the heart of an individual whose blood is in excess. The muscular fibre of the heart is unduly excited, the origins of the pneumogastric trunks receive too much blood, and there are frequent and violent palpitations as a result of the preceding conditions. These symptoms are apt to occur among individuals who, for one reason or another, have abandoned active and abstemious habits of life for those of ease and self-indulgence. There is no more prolific source of functional heart trouble than an anæmic state. We are constantly encountering it in city practice. Numerous causes may be assigned for the presence of anæmia, but once present it will often become the source, not only of cardiac palpitations, but also of many secondary phenomena, which indeed appear to be very similar to those we find in connection with organic heart disease. The prognosis and treatment being so very different in these two conditions, it should make us very cautious in affirming our diagnosis. Usually, functional heart disorder, due to anæmia, is accompanied by numerous other symptoms which fully establish its etiology. Such are headache, intercostal neuralgia, cold extremities, leucorrhœa, etc. Palpitations are often aggravated, if not directly occasioned, by the presence of atonic dyspepsia. Wind accumulates in the over-distended stomach after a meal, and soon the heart is pushed aside and its circulation is directly interfered with and becomes markedly laborious. This same mechanism will account for cardialgia which is so apt to show itself in hysterical women during a paroxysm. In both cases the immediate exhibition of a carminative, such as the compound tincture of lavender, aromatic spirits of ammonia, or melissa water, will, by bringing up the wind from the stomach

or excessive to be localized, give almost instantaneous relief. In speaking to you at a previous lecture of the effects of spasm of the capillary system, I pointed out to you how sudden palpitations might be produced in a wholly unexpected manner, owing to spasm of the arterioles. I recently thus effect upon the rhythmic beats of the heart was presumably due to an accumulation of lithic acid in the blood, and even in the last edition of the work of your eminent Professor of Practice it is thus described. But within a few years, thanks to the distinguished researches of Sutton and Sir William Gull, but more especially of Greenfield Sikes, of King's College, London, it is now accurately determined that there is hypertrophy of the muscular tubes in some cases, of the fibrous tissue of the walls of the arterioles in more numerous instances, and of a combination of both changes in a very limited number of examples, which accounts for gouty palpitations. Doubtless uric acid is still to be found in excess in the blood, but it does not seem to be the proximate factor in causing spasm throughout the capillary system. This, once again, is due to an evident, determined pathological lesion. Why it is that gouty palpitations come on during the night particularly, I am not prepared to say. After all, in the consideration of cardiac palpitations, we must not lose sight of the fact that cardiac excitability varies very much with different individuals: some there are whose heart palpitates from even the slightest emotions; others bear with the greatest stoicism, or rather most perfectly calm, quiet circulation, all sorts of sudden shocks or dreadful occurrences. All the causes which affect merely the rapidity and force of the cardiac action, influence it through the sympathetic system; those which act through the pneumogastric alter the rhythm of cardiac movements. This is distinctly shown by the results of the experiments of sectioning those nerves.

While we can separate in our experiments the control which belongs to each system of nerves, this is not always possible with certain morbific agencies. The symptoms present often show conclusively that they have acted through both systems. While the nervous trunks no doubt usually carry the impressions and modifying stimulus to the heart, it is often true that the nerve-centres themselves are primarily disturbed.

Apart from the symptoms which can be localized, and, therefore, attributed to the heart directly without much reason for uncertainty, there are many general symptoms which manifestly must differ according to the different cause or pathological relations of the cardiac disturbance.

Physical investigation discovers clearly two facts: 1st, that there is no evidence of structural lesion. 2d, the presence of signs which enable us to affirm that the heart's walls and orifices are sound. If we bring percussion to our help, we find the heart has its usual size. Whenever functional trouble is conjoined with organic trouble, ordinarily the heart is, without question, more or less enlarged. Palpation of a heart functionally disturbed finds the apex at its normal seat; does not recognize such increased power as one would expect to find if the organ were hypertrophied, and seldom has a sensation approximating that of a "thrill." If auscultation be employed, there are usually no murmurs, and the heart-sounds, barring what is due to excitability, are healthy. If murmurs exist they indicate the accompanying blood condition, and this is indicated more by their seat and time of greatest intensity than by anything in the actual tone of the murmurs themselves. We have had great reason to believe, during the last few years, that many cardiac murmurs, once assumed to be evidence of organic trouble at the orifices, are only due after all to what should be considered functional trouble. And in the same line of reasoning I would now hold that, even with very pronounced disorder of cardiac action, it is not correct to infer the existence of either dilatation or fatty degeneration of cardiac fibre. The causes mentioned above are usually the origin of all the symptoms, and once they are effectually removed, the heart will come right of itself. The first sound of the heart affected with functional disturbance is sometimes accompanied with a clearly distinct metallic timbre, which is due, oftentimes, not as Hope affirms, to the noise of the cardiac impulse against the sixth rib, but simply to a stomach inflated with the gases of imperfect and prolonged digestion. I have seen this symptom persist for many weeks, and then quietly subside under the influence of a well-systematized treatment directed against the dyspepsia. In the diagnosis of functional trouble of the heart, the first and most important matter is to determine that no organic heart affection exists. Afterward we must endeavor to determine to what extent the signs present are occasioned by complicating symptoms of functional nature. This we are unable accurately to affirm in a certain number of cases, after a single examination, no matter how carefully and accurately made. Upon weighing fairly all symptoms present, the age and circumstances of the patient, his preceding history, his hereditary tendencies, the nature of his employment, etc., we are still obliged to apply the touchstone of treatment in order to reach the exact truth. Even physical examination, so sure at times in the results afforded, will occasionally leave the mind uncertain as to the correct interpretation of the signs it makes known. The normal sounds of the heart are so much obscured by rapidity and irregularity of action, and so many general phenomena are present which may, at first, be attributable to organic disease, that we are forced to suspend judgment for a time. True it is that the varying degree of painful symptoms, their lack of permanency particularly, and the absence of grave disturbance, such as dropsy, hemorrhage, paralysis, etc., all point more directly to functional disorder than to structural disease.

But how many examples of the latter kind remain for a long period ignored, owing to the simple, though not always recognized fact, that they are covered up, or concealed from view, as it were, by the presence of a complicating neurosal affection, only those who practice frequent auscultation can be aware. Now it is just this very troublesome element of disease, the nervous one, which it is important to eliminate by judicious treatment, and to do this quickly and effectually we must rely, to a certain extent, upon the proper use of well-selected therapeutical means, but we should also rely greatly upon moral power. If the physician consulted be thoroughly conversant with the complex nature of the affection he is called upon to treat, and yet feels confidence in his own resources, he will take positive ground by affirming in the beginning that many, if not all of the distressing symptoms experienced by the patient, are the sequelæ of a deranged nervous system. He is abundantly justified in so doing, first, because in the majority of instances the future will prove the truth of his statements, and in the few instances in which he may, perhaps, be partly in error, the immense moral weight obtained from the start is of incalculable advantage to the patient. And even

supposing, what is only rarely true, that there is in reality present an advanced stage of organic cardiac disease, we know well, by daily contact with hospital patients, that freedom from emotional excitement, perfect rest and tranquillity, good food, haematinics, and the moderate use of digitalis, strychnine, and carbonate of ammonia, will work wonderful results. Make such a patient despair by telling him he has incurable or real cardiac disease, and soon the onward and downward tendency of his disease will be so marked, in spite of all our efforts, that we shall have to deplore rapidly fatal cases in which, by a justifiable deceit, there was the possibility of several years of life. Of course such a line of conduct as I have traced would not be permissible where sudden death might be anticipated or major interests of great moment are at stake. And look for a moment at a sad, though usual example, of daily occurrence: Take a young fellow, like one among yourselves, who is simply run down temporarily in bodily vigor by too great sedentary occupation, combined with mental strain, and, perhaps, abuse of tobacco and coffee. He commences to be troubled with disagreeable, or even painful cardiac sensations. He cannot sleep comfortably at night, and after a half-dozen whiffs of a cigar, or a rapid walk of short duration, his heart seems suddenly to stop, or to beat forcibly and rapidly for a few moments, and then give intermittent and irregular shocks, which make him believe that all his internal machinery is out of gear. Under these circumstances he consults some experienced physician, who informs him solemnly that he has heart disease. What is—what can be the result—but gloomy forebodings, and a restless, irritable feeling which forbids all steady, honest work, and makes him for months and years the victim of groundless fears? Better far that the examination had never been made, or the medical man consulted, for after a time, with improved hygienic surroundings, and more sleep and leisure, such cases might often come out all right. If not, abandonment for a time of tea, coffee, and tobacco, and the use of moderate doses of henbane, chloral, or aconite, with the local application of a belladonna plaster in the precordial region, will get the heart soon in good working order. During a painful attack of cardiac palpitations it may be advisable to give an opiate or an antispasmodic remedy. Tincture of lavender, aromatic spirits of ammonia, chloric ether, elixir of valerianate of ammonia, etc., are all good, and may be severally employed with advantage to the patient in relieving his distress. For several years past it has been my habit to combine the three first in equal quantities with an amount of syrup equal to the three in bulk. Of this mixture I give a teaspoonful in a little water every hour, until the painful feelings are notably relieved. Alcoholic stimulants are not debarred by this method of treatment, especially if the patient be weak and complain of fainting sensations.

There are numerous examples, however, in which the functional trouble accompanies a moderate degree of organic cardiac trouble, and so soon as the former is relieved, the latter remains innocuous with a little judicious care for a long series of years. The functional trouble may be dependent upon the condition of the blood, the stomach, or the gouty diathesis, or what is still tolerably frequent—a combination of different pathological conditions. Manifestly, in all such cases, while carminatives, small doses of digitalis, or the remedies already indicated, may be usefully employed to relieve occasional disturbance, paroxysmal in character, permanent relief can only be obtained by remedies directed against the causal agencies at work. If a plethoric state be present, use mild depletory measures, such as small, repeated doses of the neutral salts; if anæmia be the underlying difficulty, iron, generous diet, and life in the open air, are mainly to be relied upon; for relief of dyspeptic trouble, regular meals, riding on horseback, and rationally formulated stomachics, varied according to prominent indications, should be persistently insisted upon; as for gout, potash and lithia salts are our sheet anchors, and soon an improvement of the cardiac condition will follow their exhibition. If the indications be complex, our formulæ should be made, so far as possible, to meet the requirements of the individual case.

Original Communications.

ON GONORRHOIC IRIDO-CHOROIDITIS.

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The following cases are published as illustrations of a disease, the existence of which is still doubted by some authors. With regard to the frequency of this affection I concur in the opinion of Förster ("Graefe und Saemisch, Handbuch der Augenheilkunde," Band 7, p. 86) and Leber ("Bericht über die zwölfte Versammlung der ophthal. Gesellschaft," Heidelberg, 1879, p. 129), who believe that if, in every case of iritis, an examination be made of the urethra, or the history of the case be carefully inquired into, it will be found that this disease is not an uncommon one. How the gonorrhœa causes the disease of the iris and choroid is not known. Mackenzie and other English writers believe that it is caused by metastasis. Leber (*op. cit.*) thinks that the gonorrhœal rheumatism and iritis are the result of a diffusion of the gonorrhœal poison through the system by means of the circulation—a kind of metastasis of the virus, which, according to recent investigations of Neisser, is said to consist of peculiar micrococci.

Case I.—A gentleman, about twenty years of age, contracted gonorrhœa some years before I saw him, which was followed by inflammation of right knee-joint, and iritis of right eye. Since then he has had repeatedly attacks of rheumatism. He has never had syphilis. Some months ago he again contracted gonorrhœa, and this attack was also followed by inflammation of knee-joint. He still has a slight urethral discharge. Two days ago his left eye began to pain him. On examination I found in the left eye an injection of the subconjunctival vessels on the temporal half of the sclerotic. There was no visible change in cornea or iris. Vision was perfect. The right eye showed no signs of inflammation, but the pupil was bound down by numerous broad posterior synechiæ, and obstructed by a dense pigment deposit. Vision = $\frac{5}{20}$. The vision of this eye has been impaired since the attack of inflammation several years ago. Two days later the whole ocular conjunctiva of left eye was intensely injected; the aqueous was clear; the pupil widely dilated from the instillation of the sulphate of atropia, and the iris neither swollen nor discolored. An examination with the ophthalmoscope showed the interior of the eye healthy. On the following day there was great œdema of

the ocular conjunctiva. The aqueous was cloudy, the iris swollen and discolored, the pupil much smaller than the day before, and in the pupil was a grayish exudation. The eye was very painful, there was photophobia and lachrymation, but no purulent discharge whatever. During the next three days the aqueous became more turbid, and on the fourth day the lower two thirds of the anterior chamber were filled by a grayish gelatinous fibrinous exudation. Vision was now greatly impaired and the pain was exceedingly severe. On the following day there was less chemosis and less pain; the exudation in the anterior chamber had undergone no change. The pain had again increased. There was now, also, considerable circumcorneal injection in the right eye, which, up to this time, had been free from pain. The anterior chamber contained an exudation similar to that in the other eye, and the iris was swollen and discolored. The patient was now nearly blind in both eyes. During the next two days the eyes underwent but little change, except that the exudation seemed to contract. On the following day there was increased pain in the left eye, the chemosis was more marked, and the aqueous was again quite muddy. The right eye was decidedly better. During the following week there was a steady improvement in both eyes. In the left the chemosis gradually diminished. The aqueous became clear, the gelatinous exudation assumed first the shape of a lens, and then that of a disk, in which form it remained suspended in front of the dilated pupil for several days, and then gradually disappeared. About this time a filmy exudation was noticed to cover the lower portion of Descemet's membrane, and a mass of pigment made its appearance on the outer pupillary margin. The vitreous was so hazy that the details of the fundus could not be made out with the ophthalmoscope. Two weeks later there was still injection of the subconjunctival vessels for some distance around the cornea of the left eye. The cornea and the aqueous were perfectly clear. On the anterior capsule of the lens were several concentric grayish rings (the remains of the exudation), and the vitreous was still hazy. The tension of the eye was somewhat below the normal. Vision = $\frac{2}{3}$. About six weeks later, all injection of the ocular conjunctiva of left eye had disappeared. The iris was still somewhat discolored, but not swollen. The vitreous was clear and the fundus oculi apparently normal. Tension and vision were normal. The eye remained in this condition for about two and a half months; then there was again some pain, and injection of the vessels near the outer margin of the cornea, caused by the development of a phlyctenula in the limbus conjunctivalis, which speedily disappeared again. Since then the eye has given him no trouble. Vision is perfect. The urethral discharge disappeared shortly after the appearance of the iritis.

The treatment consisted in the application of leeches to the temples, frequent instillation of a one per cent. solution of the sulphate of atropin; cold applications to the lids, and the administration of one-half grain doses of calomel three times daily during the first week, and of large doses of iodide of potassium after that time. Morphine was given freely whenever there was much pain in the eye.

Remarks.—The fact that the two different attacks of gonorrhœa were each followed by iritis, shows, I think, that there was some connection between the urethral disease and the eye affection. Similar observations have been made by Mackenzie, Förster, and others. Mackenzie, in his classic "Treatise on the Diseases of the Eye," Am. Ed., 1855, page 581, states "Each time the patient eat has gonorrhœa he is liable to an attack of synovitis or iritis, or suffers first from the one and afterward from the other. In some cases, however, there has been no new gonorrhœa, although a second or third attack of inflammation has affected the joint or the eye." Förster (*op. cit.*) says: "That this connection is not an accidental one is shown by the regularity with which different attacks of gonorrhœa in the same person are followed by iritis."

Case II.—A young man, about twenty years of age, presented himself at St. Michael's Hospital for the treatment of his inflamed right eye. Some five years before he had had a severe attack of acute rheumatism. About six months ago he contracted gonorrhœa which was soon followed by inflammation of his right knee-joint and right hip-joint. During this attack his right eye became very much inflamed and painful. His physician looked upon the eye disease as a gonorrhœal conjunctivitis, and treated it successfully. Four months ago he had presented himself at this institution with a small ulcer of the cornea, which healed speedily under the usual treatment. After that he was entirely free from eye trouble till ten days ago, when his right eye became painful. He still had some gleet. On examining his eye I found great congestion and œdema of the whole ocular conjunctiva. The cornea was clear. The aqueous was cloudy, and in front of the lower half of the iris and the pupil was a thin membranous exudation with sharply-defined upper margin. The entire iris was discolored but not much swollen. The vitreous was hazy. Details of fundus could not be made out. Three days later the aqueous was clear, and the membranous exudation had nearly disappeared. All evidences of the eye affection had disappeared four weeks later.

The treatment consisted of leeches to the temple, instillations of a one per cent. solution of the sulphate of atropin, and the administration of salicylic acid, and the sodic carbonate in fifteen-grain doses three times daily.

Remarks.—Since an interval of about four months intervened between the disappearance of the ulcer of the cornea and the development of the iritis, it is highly improbable that there was any connection between the two eye diseases. It cannot, however, be denied that the rheumatism may have had a share in causing the irido-choroiditis.

Case III. A rather thin but healthy man, forty-three years of age, who had never had syphilis or rheumatism, and had always enjoyed excellent vision, contracted gonorrhœa about three weeks before his eye disease began. I saw the patient for the first time in consultation with Dr. Lehlbach, on the 16th of November. The right eye had then been inflamed five days, and the left eye three days. There was still some discharge from the urethra. He had no rheumatism. The condition of the eyes was as follows: Right: both lids are puffy. The palpebral conjunctiva is congested but not swollen. The ocular conjunctiva is intensely injected and œdematous. There is no disease of the cornea. The aqueous is turbid. The iris is discolored but not much swollen in its upper half; in its lower half it is covered by a whitish granular deposit. The pupil is dilated, and its centre is occupied by a grayish disk-like exudation. (Atropin had been used for several days.) In the vitreous were numerous floating opacities which prevented examination of background of eye. Vision so much reduced that he could count fingers only at two feet. Tension normal; visual field intact; very

great pain in eye; no purulent discharge. Left: lids, conjunctiva, and cornea same as right. Lower two-thirds of anterior chamber filled with a grayish gelatinous exudation, the upper margin of which is convex. Pupil contracted; fundus cannot be illuminated. Has only perception of light in this eye. Tension and field normal. Excessive pain; no purulent discharge.

Although leeches had already been applied to both temples, six more were applied to each side. The hourly instillations of a one per cent. solution of sulphate of atropia were continued, and iodide of potassium in fifteen-grain doses was administered three times daily.

November 18th. Right: no change. Left: Exudation somewhat diminished; upper margin irregular; pupil irregularly dilated; several broad posterior synechiæ. Has still pain in eyes, and there is now some mucous discharge from eyes. Has been perspiring freely since yesterday. Ordered inunctions of mercurial ointment, twice daily, in addition to the other prescriptions.

November 20th. Right: conjunctiva as before; pupil widely dilated; whitish exudation on iris has disappeared; vitreous opaque; vision as before. Left: exudation in anterior chamber has been absorbed; lower half of pupillary margin irregular; vitreous opaque. Can recognize light from darkness only. Has still pain in both eyes. Continued treatment.

November 26th. Right: less œdema, otherwise no change. No pain. Less secretion. Left: aqueous again somewhat turbid; pupil more contracted than before, otherwise no change. Same treatment.

November 28th. Right: less œdema and less injection of conjunctiva. No other change. Left: there is again some fibrinous exudation in anterior chamber, otherwise as before. No change in treatment.

November 30th. Right: less injection and œdema of ocular conjunctiva, otherwise no change. Counts fingers in lower half of visual field. Left: less swelling of ocular conjunctiva; exudation in anterior chamber has again disappeared; pupil irregular, but wider than before; vision as before. Discontinued inunctions and substituted salicylic acid and sodic carbonate in fifteen-grain doses for potassium iodide.

December 12th. Right: ocular conjunctiva is pale and not swollen; aqueous clear; pupil widely dilated; vitreous still opaque. Left: same as right. Vision as before. In addition to the other remedies gave pilocarpinum, one-quarter grain hypodermically, daily, which produced neither profuse perspiration nor salivation, but caused great depression, and was therefore discontinued a few days later. Potassium iodide in thirty-grain doses, three times daily, was then given, also sulphate of quinia, three grains, three times daily.

January 19th. In the right eye the vitreous is now much clearer. Optic papilla and retinal vessels are seen indistinctly. The vitreous in the left eye is about as opaque as before. His vision has sufficiently improved to enable him to walk about with safety. Continued same treatment.

March 20th. Till yesterday the sclerotic of both eyes was white. There is now some circumcorneal injection and a few phlyctenulæ are seen on margin of cornea in both eyes. Vision is now V. = $\frac{6}{9}$, in both. Patient has had an attack of diphtheria since I last saw him.

June 5th. The phlyctenulæ disappeared in a few days under the use of calomel dusted into the eyes. Since then the eyes have been free from irritation. There is now an abrasion of the epithelium almost in the centre of the cornea of the right eye. The vitreous still contains grayish opacities. Vision as before.

Since then I have not had an opportunity to test the man's vision, but it must have greatly improved, as he is now able to keep his account-books and read large print.

Remarks.—This case was one of the gravest cases of irido-choroiditis from any cause that I have ever seen. The disease attacked both eyes at the same time and with the same severity, and continued for more than six months, after which useful vision was restored by a gradual clearing up of the vitreous. As an uncommon feature of the case, may be mentioned the absence of all symptoms of rheumatism, although similar cases have been observed by Mackenzie, Ricord, and others.

An analysis of the above cases shows that in all of them a urethral discharge was still present at the time the irido-choroiditis made its appearance. Inflammation of one or more joints preceded the development of the eye affection in two cases, and in one it did not. Both eyes were affected in two cases, and one eye only in one case. All of the cases recovered. In all of the cases there was much pain in and around the eyes, there was slight seromucous discharge, and greatly impaired vision. The tension was normal in two, and somewhat reduced in one case. The visual field was intact in all. There was more or less œdema of the lids, intense injection and œdema of the entire ocular conjunctiva, a gelatinous or fibrinous exudation in the anterior chamber, discoloration and swelling of the iris, contraction of the pupil, and more or less opacity of the vitreous in all of the cases.

The treatment consisted of leeches to the temples, in cold applications to the lids, instillations of a solution of atropia sulphate, cathartics, inunctions of mercurial ointment, and the administration of potassium iodide, sodic salicylicate, pilocarpinum, and morphium sulphate.

SANITARY ADMINISTRATION AND ENDEMIC DISEASE.

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PROMINENT among the causes which produce, in the ranks of the medical profession, that degree of apathy regarding sanitary effort about which our professional sanitarians complain, is the unscientific attitude assumed by the average health official toward the endemo-epidemic diseases which are naturalized in certain localities. This attitude grows, in great measure, out of the habit of looking upon disease as an evil to be extinguished, without much regard to the character of the measures employed. Now disease, like its congener, pain, is not an evil. It is a most valuable symptom of evil—a symptom without which the discovery of evil and its elimination would be absolutely impossible. Thoughtless people often remark that if they had the power they would annihilate disease and death. We can, indeed, conceive of a state of things in which such uncomfortable events could find no place; but such a state is incompatible with existence in a material universe. Much as we may desire to have things differ from the condition in which we find them, we must accept our position in this universe, and seek to make the best of our situation. In order to attain

this end, it is absolutely essential to fall into line with the forces of nature, and to work with instead of against those forces. We may thus hope by degrees to adjust our existence to the conditions that are imposed upon it, and then we shall be free from the evil consequences of a lack of harmony with our surroundings. Disease in such a state would be an unknown, for disease is the result of an inharmonious relation between the internal forces which sustain the life of the individual, and the external forces which form his environment.

Disease, therefore, being merely a symptom, is not the object against which the efforts of the sanitarian should be directed. Disease may be compared with the movement of the mercurial column which indicates the varying intensity of the vibrations of heated matter. When we desire to cool the room, we do not remove the thermometer—we close a damper, we open a door. Precisely analogous should be the behavior of the sanitarian. Instead of cursing the fever that prevails in a community, he should regard it as a most valuable indicator of the active presence of some noxious force which disturbs the harmony that should exist between the individual resident and his environment. This disturbing force will be found either within or without the individual, and intelligent investigation will always succeed in thus referring the cause. Obviously, therefore, the measures necessary for the removal of the causes of disease must be varied to suit each malady. Limiting our inquiry to the class of infective diseases, we shall find it necessary to adopt different methods in order to harmonize ourselves with the efficient cause of each member of the class. If, as in the case of cholera, or yellow fever, the causes are purely exotic to a given locality, careful quarantine is the proper measure to adopt. But, if quarantine shall fail to keep out the infective agent, we must rely upon local sanitation and personal hygiene, upon actual deportation of the movable population, and the most rapid possible diffusion of the disease among those who elect to remain upon the infected spot, so that the epidemic period may be shortened, and the number of "acclimatized" persons may be increased. If, as in typhus fever, the cause resides in human effluvia, then ventilation, cleanliness, and abundant supplies of food are the appropriate antagonists of the cause of the disease. If, as in the case of typhoid fever, the disease is originated by decomposing fecal matters, we need not regard the secondary and comparatively unimportant fact that the disease may be communicated by one person to another; but we should bend all our energies to the removal of the filth which vitiates the air and the water of the infected region. If, as in the case of small-pox, measles, and scarlet fever, we know not either the original localities nor the external conditions that engender the disease, but only know that by exposure to the action of a particular virus the body may be defended against future assault by a similar virus, we should seek for such protection. This we have learned to do in the case of small-pox; and, when we shall have enlarged our knowledge to the full measure of science, we shall also do the same thing in the case of measles, mumps, and scarlet fever. Centuries of experience have proved the impossibility of protection by quarantine against small-pox. The ancient nations of the East long since gave up the attempt, and still protect themselves by free exposure to the disease. But, as the protection thus obtained is purchased at a considerable cost of life, it was a decided improvement when the method of inoculation was originated; and now we find our greatest advantage in the widest possible diffusion of the disease in a form still more considerably modified by the passage of the virus through the body of the cow. In all these methods, however, the principle is the same, to wit, the most perfect and general adjustment of the community to the action of small-pox virus by a continued diffusion of the disease in one of its various forms. One of the lessons taught by this experience is the fact that *in proportion to the pandemicity and endemicity of virulent diseases will be the diminution of their danger.*

From the same experience we may learn the true course which should be adopted in our efforts to ameliorate the sanitary condition of mankind. Where we cannot reach the primitive cause of an endemic, virulent disease, we should not seek to "stamp it out" by a quarantine that never succeeds, but we should strive to attenuate the virus by its widest possible diffusion. The opposite process simply creates an increased susceptibility, and favors the occurrence of uncontrollable epidemics—like the epidemics of small-pox and of measles that swept away the North American Indians and the Pacific Islanders. By constant familiarity with the causes of a virulent disease, hereditary tolerance becomes, at length, a most valuable defence against its dangerous prevalence. The history of syphilis affords an instructive illustration of this fact, and our experience of the diminishing protection afforded by vaccination is another suggestive example. Let us suppose that, as a result of hereditary tolerance, the susceptibility to small-pox exhibited by the European population at the close of the last century, could have been represented by 100 upon a graduated scale. Let the additional tolerance affected by vaccination at that epoch be represented by a depression of susceptibility to 1 on the scale. This will represent a difference of 99 in favor of vaccination, which will then be almost perfectly protective against small-pox. But, after a time, as a consequence of infrequent exposure to the unmitigated virus of small-pox, the degree of hereditary tolerance will diminish, and the susceptibility of the population will correspondingly increase. Let us now suppose that in the course of eighty years the degree of susceptibility has risen till it can be represented by 125 on our scale. The protective power of vaccination being still represented by 99, the present susceptibility of the vaccinated population will now be $125 - 99 = 26$, and small-pox will prevail to a corresponding extent in spite of previous vaccination. This provision of science is what we actually observe in practice—a fact which proves the complete absence of a scientific foundation for the hope that small-pox can be exterminated by assiduous vaccination. We can only tame the monster—we cannot destroy him. The same line of reasoning is equally applicable to measles, scarlet fever, and other virulent diseases. In communities like our own, and like the British Islands, where these maladies are endemic, and where their constant prevalence is due to local conditions outside of the human body, rather than to the element of a contagious virus—witness the comparative rarity of scarlet fever in France, though it rages continually on the opposite side of the English channel—the proper course is that which will favor their widest possible prevalence. But, out of consideration for the ignorance of men, it is inexpedient to undertake active measures for the propagation of unmodified measles or scarlet fever. It is better to leave their diffusion to the unassisted operation of natural methods, until

we have learned how to modify their *materies morbi*, as we have learned how to attenuate the virus of small-pox. In this connection, a recent observation by Pasteur (*Nature*, Feb. 19, 1880, p. 388, and *Le Progrès Médical*, May 1, 1880) is very suggestive. He found that the disease called *fowl cholera* could be communicated to healthy fowls by inoculation with virus derived from diseased fowls. Repeated culture "by transference of minute drops from liquid to liquid does not weaken the virulence, but by a certain mode of culture M. Pasteur *can* weaken it. If twenty out of forty fowls be inoculated with the very virulent virus, they nearly all die; but if the other twenty be inoculated with the attenuated virus, they all become ill, but very few die; inoculation of those that recover with the very infectious virus does not kill them. The novelty here is the preservative effect of inoculation in a disease caused by a living organism (in the virus of small-pox, etc., no life has been proved). The cholera of fowls may be prevented from becoming fatal, and the author describes the return to health of a fowl inoculated in the large pectoral muscles. He expresses the hope of obtaining artificial cultures of all kinds of virus, and notes the encouragement obtained for the search of vaccine virus of virulent maladies."

This "attenuation of virus" is one of the natural processes which serve to extinguish virulent diseases that have become epidemic outside of their native territory. Witness the benignity of syphilis at the present time as compared with its ravages three hundred years ago. Witness the mortality of plague, cholera, yellow fever, etc.—greater at the commencement of each epidemic than at its close. Other causes co-operate; but the attenuation of the *materies morbi* is one of the principal factors by which a diminishing mortality and final extinction of the epidemic is affected. This natural method, however, has the disadvantage of preparing the way for a renewal of the epidemic when the protective effects of its first incidence have in like manner disappeared. The true way, therefore, to prevent these revivals of infective disease is to cultivate its virus, and to maintain its presence in the community as carefully as we do in the case of small-pox. If the suggestions of Pasteur ever bear fruit, we shall manage scarlatina just as we manage small-pox, and we shall propagate among our children the modified scarlet fever with as great assiduity as we now disseminate the modified variola. Until that time, however, the truly scientific method with scarlet fever, as with all kindred diseases whose origin is concealed, will consist in permitting its unrestricted prevalence, in order that the community may secure the advantages accruing from continuous personal and hereditary adjustment to the causes of the disease. The individual suffering and mortality consequent upon such a method constitutes no reasonable objection, for that mortality is a real advantage to mankind. By weeding out the feeble offspring of the community, the prevalence of epidemic disease is a constant source of vigor to the race. It is in newly forming and fluctuating communities, where the heterogeneous elements find varied conditions unfavorable to health, that epidemic diseases are most prevalent. In such communities they are to be reckoned among the most potent means of adjustment between the population and its unwonted environment. The survivors of an epidemic enjoy a better chance for life, and their ability to transmit a larger amount of physical vigor is correspondingly increased. Nor are the injurious consequences, occasionally noticed among the convalescents of an epidemic, to be considered objections to this doctrine, for they are completely balanced by the more numerous examples of radical and permanent improvement of health and vigor which result from an attack of epidemic disease, but pass unnoticed because less conspicuous than the unfortunate cases. It is true that our individual instincts prompt us to avoid evil in every possible way, and the advocates of sanitary interference with the laws of nature argue that the community should come to the aid of the individual in his effort to protect himself against disease. But, with reference to endemic diseases, this is one of the many instances in which the interests of the individual and the interests of the community are entirely divergent. A truly scientific administration will give heed to that law of nature which subordinates the parts to the whole—the individual to the community. If, however, the contrary principle is to be adopted, and the highest good of society is to be subordinated to the selfish instincts of its individual members, very well. Only let us clearly understand the kind of stuff for which we are called upon to pay.

Such, then, are the conclusions of science, and such they have always been, though entertained with continually increasing confidence by every genuine student of nature since the morning when Darwin and Spencer, and their co-workers, let in daylight upon the problems of the universe. But this is far from being the creed of the average politico-sanitarian, who desires a high salary for acting the part of a benevolent despot in the attempt to "stamp out" disease. The cause of this phenomenon is not far to seek, and its investigation is instructive. The cause of this wide severance between the doctrines of science and the practice of officials lies in the fact that sanitary science has hitherto been cultivated almost exclusively by officers of the army and of the navy. To these very estimable gentlemen the world is indebted for the greater part of the progress that has been made in sanitary knowledge, and it is to their writings that the sanitary neophyte is almost compelled to turn for the information that he needs. But the problems which these military sanitarians have studied, are the simplest that can be presented for solution. The homogeneous society over which they preside exists for but one end—warlike efficiency. The army must be kept in the highest possible condition of vigor, no matter what it may cost, or who else may suffer in consequence. The military sanitarian, therefore, has only to consider a problem that has been reduced to its lowest terms—a problem in which the elements are almost purely physical. If certain measures prove adequate to the maintenance of the health of the army, it is entirely superfluous to discuss their concurrent effects upon mankind at large. This is the application of science made easy. But when we turn to the vast and many-sided organizations of civil society, the problem of sanitary administration becomes correspondingly complex and difficult. Mankind cannot be rightly treated like a passive machine in the hands of its rulers.

Every question which touches society as a whole, possesses attributes that have no necessary relation with a military engine like the army or the navy. Society is made up of free, intelligent, moral beings, and it is absolutely essential, in dealing with society, that this fact should be kept prominent in the foreground. How will a given measure affect a soldier's physical constitution, is the question to which the military sanitarian addresses himself. How will a

given [illegible] affect more or less physical, social, intellectual and moral conditions in the form which the same question would take in the midst of civil sanitarians. Unfortunately, too many of our newly-fledged officials have not yet learned the difference between these two forms of inquiry; and they for the most part continue themselves until sharply rebuked in some court of law with the attempt to extend over civil society the narrow methods of military life. As Dr J. S. Billings has recently remarked, in his introduction to Buck's work on Public Health and Hygiene, they do not trouble themselves about anything but the supposed physical utility of their measures, leaving for a period of leisure the work of reconciling their results with the moral code. This is a rather clumsy way of stating the fact that the ordinary sanitarian is in the habit of working from the standpoint of a narrow specialist, and, like all narrow specialists, he is for this reason continually doing harm where he would do good. The great want of the present time is a capacity for breadth of view regarding sanitary administration, but such breadth can never be attained by the study of the writings of military and naval authors alone. Nor can the needful degree of wisdom be acquired through mere imitation of the methods that are considered legitimate among the civil authorities of the old world where the spirit of military despotism is the dominant power. If our sanitarians desire to secure the respect of thoughtful people, and if they are really solicitous about the highest welfare of the human race, they must, in this free and enlightened country, consent to review their studies in the fullest light that can be derived from the principles of science, philosophy, and morality. Too many of these people appear to be actuated chiefly by an itching desire to get some dirty little place of prostitution under their fatherly care, or by a wilful determination to compel the adoption of some equally narrow and unscientific measure, simply because they have heard that it was useful to men placed under the abnormal conditions of soldiers in barracks, of soldiers on shipboard, or of criminals in jail. Such exhibitions are characteristic of ignorance and immaturity; consequently, the sooner our sanitary students can be educated up to the broad level of science and philosophy, the sooner they will become—what they are yet far enough from being—entitled to rank among the great benefactors of the human race.

THE HOT WATER VAGINAL DOUCHE. A SIMPLE APPARATUS FOR ITS ADMINISTRATION.

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More than twenty years ago (in 1859), Dr. Thomas Addis Emmet first employed hot-water vaginal injections in a member of his own family, and the result was so satisfactory, that, from that date till this, scarcely a patient has fallen under his care in whom they have not constituted an important factor in treatment. To Dr. Emmet belongs the credit of demonstrating to the profession that the action of hot water upon the pelvic viscera is to disgorge the tissues, to produce tonic contraction of the vessels, thus allaying both active inflammation and passive congestion; and that it tends to restore to the normal a weak and flabby uterus, by exciting to contraction its relaxed muscular fibres.* It acts like magic on an engorged and tender uterus, and its local application effects in a few minutes what I knew of no better means for removing in twenty-four and sleepless days of a hysterical woman, than a prolonged hot water vaginal injection, when administered by an experienced hand. These injections will frequently enable a patient to sleep in less time than could be done by any remedy in the pharmacopœia.†

These facts were slow to be appreciated by the profession, but the time has now come when it is almost universally conceded that we possess no other remedial measure so efficacious, so universally applicable, and so potent in the treatment of uterine diseases, as the hot water vaginal bath. It constitutes, so to speak, the chief corner in gynecological therapeutics. This much being admitted, the all important question arises concerning the best method and simplest apparatus for administering the douche. Here opinions differ. Dr Emmet lays great stress upon the importance of the *intermittent* current, as derived from the Davidson or other bulb syringe. But the advantage gained from it has, I believe, been over estimated, and for the following reasons:

1. The resistance afforded by the amount of water in the vagina (patient on her back) is sufficient to materially lessen the force of the jet.

2. The only nozzles fit to be used for vaginal injections, are conceded to be those without the terminal hole, i.e., with three lateral openings; hence, unless the nozzle is actually pushed behind the cervix and into the posterior cul-de-sac, all three streams fail to strike the cervix at all, and even in this case but one jet could possibly do so.

3. Clinical experience has not yet satisfactorily proven that the interrupted stream has decided advantages over the constant, and both are known to yield excellent results.

4. Dr. Emmet's own patients, like all others at the Woman's Hospital of the State of New York, are there treated by the constant stream, and with results that are most enviable—as shown both by the published records of cases, and by the testimony of hundreds of grateful patients.

Moreover, granting that the intermittent stream is superior to the constant, it is not far from the truth to state that in nine cases out of ten, as met with in ordinary practice, the assistance necessary to the proper administration of the bulb-syringe jet is practically unattainable. And the effort of working the bulb one's self is such a tax upon the patient's strength, that even Emmet admits that "when, from the force of circumstances, the injections cannot be thus administered (by the hand of an experienced nurse), it is better to use a fountain, or siphon syringe, than that the patient should attempt to give them to herself."‡

This, then, being the case, it is evident that the vast majority of patients require some simple form of apparatus that will enable them to take the hot baths thoroughly, without fatigue, and without the aid of an assistant. Such an apparatus is shown in the figure on opposite page. It consists of a bath-pan (B) of tin, zinc, copper, or galvanized iron, and a reservoir pail (A) of two gallons capacity, together with about eight feet of rubber tubing, a tube clamp and a hard rubber nozzle.

The reservoir (A) is connected with the nozzle (E) by means of half (4 ft.) of the rubber tubing (C), on the middle of which is the clamp (D). The hard-rubber nozzle (E) is made large, so as not to injure

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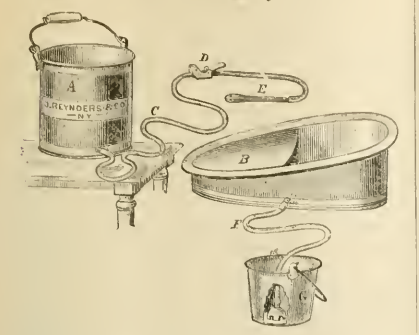
* The Principles and Practice of Gynecology, p. 28, 1874.

† Principles and Practice of Gynecology, 1879.

the soft parts, and has three lateral perforations about its bulbous extremity, but has no hole in the tip. Metallic nozzles should never be used in hot baths, because they retain so much heat as to be uncomfortable to the parts with which they are in contact, become discolored readily, and are not so



easily kept clean as those of hard rubber. One end of the other piece of tubing is attached to the side of the bath-pan, near the bottom, while the other end remains free.

The method of using this apparatus is as simple as the affair itself. The patient lies upon her back, on a hard bed or couch, with the bath-pan well up under her hips, and a small pillow under the hollow of her back. If a hard bed is not available, a board (and an ordinary "cutting board" does very well) must be placed under the bath-pan, to prevent its sinking so far below the edge of the bed that the water cannot escape through the outflow tube, the free end of which hangs over the side of the bed into any convenient waste vessel (G). The reservoir pail, filled with hot water at the proper temperature, is placed upon a stand beside the bed, or hung on a hook in the wall, if more convenient, and the nozzle introduced deeply within the vagina. Everything is now ready, and all the patient has to do to start the stream is to open the clamp (D). If the clamp be left open the flow will continue for three-quarters of an hour, or more, unless the pail is elevated much higher than necessary. But since it is not generally advisable to give the bath for more than twenty minutes or half an hour, there is ordinarily considerable water left in the reservoir, and this serves to keep the balance from cooling so rapidly as it otherwise would. When the prescribed time has expired, the patient should be instructed to depress the perineum with the nozzle, before withdrawing it, in order that the water remaining in the vagina may drain out, and a towel now placed against the vulva will prevent wetting the clothing. In the evening the bath is best taken after the patient is undressed for the night, and in the morning it is advisable for her to remain in the recumbent posture for some little time afterward.

My friend, Dr. E. C. Dudley, of Chicago, in describing a vaginal douche devised by Dr. F. H. Lord, of Plano, Ill., makes the following just criticism of the fountain-syringe and bed-pan ordinarily employed in gynæcological practice: "The fountain-syringe, quite generally used for the vaginal douche, requires no assistant, and is easily managed by the patient, but it is nearly useless, since, on account of its small size, it requires re-filling several times during each application. The common bedpan is open to a similar objection, since it requires to be emptied several times during each application."* Further on in the same article, Dr. Dudley speaks of the proper method of administering the douche, and says: "It should invariably be given with the patient lying upon the back, with the shoulders low, the knees drawn up, and the hips elevated on a bed-pan, so that the outlet of the vagina may be above every other part of it; then the vagina will be kept continually overflowing while the douche is being given." "It should be given at least twice every day, morning and evening, and generally the length of each application should not be less than twenty minutes."

The apparatus herein described I first had constructed early last August, and at present I have nearly forty sets in use. They give universal satisfaction, and yield results which, in the average patient, were previously unattainable. In the preparatory treatment of cases of laceration of the cervix, and the like, are they especially serviceable.

In presenting this simple vaginal douche to the profession, in this country, I lay no claim to originality of idea, for numerous more or less similar contrivances have, from time to time, been constructed, and its essential features are the same as those of a similar apparatus employed by Dr. Atthill, of Dublin.

The reservoir and bath-pan, as made by John Reynders & Co., New York, are painted in such a way as not easily to be affected by the hot water.

Progress of Medical Science.

Renal and Hepatic Colic.—At a meeting of the Medical Society of London, Dr. DeHavilland Hill reported a case of the above disease. The patient, an apparently healthy woman of fifty-eight, was suddenly seized with severe vomiting of a bilious character, followed by collapse. Four days after the onset of the disease she complained of spasmodic pain in the cardiac region, preceded by rigors, of which she had three. This was followed, on January 17th, by severe pain in the left lumbar and inguinal region, and also accompanied by rigors. There were two similar attacks after this, one on February 2d, the other on April 16th, in the latter of which she died, having suffered from great pain over the abdomen, accompanied by vomiting of a stercoraceous variety. At no time was there jaundice. On post-mortem examination, the pelvis of the left kidney was found to contain a calculus, and both of the organs contained a number of small cysts. A large concretion was to be seen in the ileum, about two feet from its termination, and there was fistulous opening leading from the gall-bladder into the duodenum. —*Lancet*, April 3, 1880.

Tuberculosis and Infection.—Referring to Prof. Cohnheim's latest views on the contagiousness of tuberculosis (*Facultät's Programm*, Leipzig, 1879), Dr. Friedländer remarks: The power of communicating contagion is an indisputable property of all tubercular affections. The experiments of Salomonsen and the author on the rabbit's eye, clearly proved this

* Chicago Med. Gazette, Jan. 5, 1880.

fact. It was also ascertained that characteristic infection occurred without exception in every instance where tuberculous substance was employed for inoculation. The pathological characteristics as revealed by the microscope, are not always sufficient to differentiate tubercular from syphilitic lesions, or from non-specific products of chronic irritation. Thus, neither miliary eruptions, nor the appearance of giant cells, nor cheesy degeneration, even when occurring conjointly, sufficiently characterize this affection. Hence the importance of the conclusion that contagion must form an absolutely and, moreover, the only reliable criterion of suspected tuberculosis. Adopting this new criterion, we must class with tuberculosis cheesy pneumonia, scrofulous degenerations of lymphatic glands, and generally, also, fungous arthritis; whereas simple tissues, being not inoculable—*e.g.*, lupus—are to be excluded.

The carriers of infection are presumably specific parasitic organisms. Tubercular virus commonly enters the system by inhalation through the respiratory passages. Thus the primary lesion is frequently found in the lungs, whence the disease may be carried to the pleura and the bronchial glands, or, through agency of the sputa, to the alimentary canal. This produces the common form of pneumo-intestinal phthisis. The intestinal tract is also liable to direct infection through the agency of diseased cow's milk. This leads to phthisis mesenica, so frequent in children. According to Weigert, tubercular meningitis may arise from infection through the upper portion of the nasal cavity. Excretion of the virus through the kidneys may cause uro-genital tuberculosis. The primary affections of bones and joints are explained by previous infection of the blood and local traumatism, causing increased deposition of vitiated material. Acute general tuberculosis arises from overabundance of the virus. The lesions of the thoracic duct and pulmonary veins render this a very plausible explanation of the rapidity and wideness of dissemination in such cases. Local tuberculosis is not essentially a distinct process. Their interrelation is analogous to that subsisting between chancre and constitutional syphilis. The so-called phthisical *habitus* is a result of already existing disease, not a predisposition to acquire it. Heredity is its common cause. The virus may communicate itself to the ovum and spermatic fluid, and thus be found in the newly-born. A child in this way affected may pass through long periods of latency of the virus, but its presence in the body is shown by the development of the phthisical *habitus*. Syphilis and tuberculosis are thus strikingly analogous diseases (according to the author), as indicated by the direct personal communicability of their contagion.—*Allg. Med. Cent. Zt.*, March 27, 1880.

The Pathology of Mammary Epithelial Tumors.—In the *British Medical Journal* of March 20, 1880, we find a timely editorial on this subject. It was suggested by papers recently read before the Royal Medical and Chirurgical Society, on cancer of the breast, and a peculiar diseased condition of the nipple. Some interesting questions regarding cancers in general, and more especially regarding mammary epithelial growths, were thus raised. Dr. Thin examined four tumors and pronounced them cases of duct-cancer, which he believed to be identical with the so-called adenoma of the mamma. Besides duct-cancer, Dr. Thin recognized a second variety of epithelial growths, the ordinary scirrhus of pathologists. These two varieties are said to derive their distinctive qualities from the two kinds of epithelium found in the normal mamma, these being the columnar epithelium of the ducts and the secreting epithelium of the acini. The peculiarity of duct-cancer is the formation of rounded columns of cells, which sometimes form perfect epithelial tubes. A point of clinical interest is that tumors which, under the name of adenoma or chronic mammary tumor, have been regarded as non-malignant, do, in some cases, run a comparatively rapid course and produce death. Waldeyer called such tumors cancer, and recognized their connection with the galactophorous ducts. Many cases of rapidly-growing tumors have been probably confounded with scirrhus cancer. On the other hand, Labbé and Coyne relate the case of a woman aged sixty-seven, in whose breast a painless tumor remained stationary for thirty-four years. It then began to grow, and, after two years' continued active growth, it was removed. It had all the essential characters of a duct-cancer, and not those of a scirrhus. The inference is justified, that at present it is impossible to always determine the nature of a tumor without microscopical examination. We remember an illustrative case which occurred at the surgical clinic of Strasburg. Prof. Lücke removed a mamma, which was the seat of a rapidly growing tumor, having all the clinical appearances of scirrhus. A microscopical examination by Prof. v. Recklinghausen, showed it to be a characteristic adenoma. This term is, however, apt to mislead, inasmuch as the new growth forms no secreting structure, and does not even originate in the pre-existing secreting elements of the gland. On the other hand, many surgeons will hesitate to apply the term duct-cancer to a growth that usually remains localized for many years without constitutional infection. But the progress of pathology has taught us the necessity of taking into account the anatomical structure of tumors in all questions of nomenclature. Hence the chronic mammary tumor, or adenoma, is frequently a true cancer. The growing epithelial tubes and columns not only displace, but destroy, the surrounding bundles of connective-tissue. The effect on the latter varies very much in different instances. In many cases it is comparatively slight and leads to a capsular formation; sometimes the newly-formed tissue is incompletely developed as regards quality, but largely developed as regards quantity, and we have then the adeno-sarcoma of Billroth. In other and rarer tumors, the destructive effects on the connective tissue are, in some parts of the growth, greatly in excess of any new formation of that element; and there is then a tumor that clinically is apt to be mistaken by the surgeon for scirrhus. Whether a growth that springs from a morbid action connected with the more highly differentiated columnar epithelium of the large ducts is more malignant than one that springs from the epithelium of the smaller ducts; or whether mere proximity to the surface and consequent irritation of the diseased epithelium, in its earlier stages, endows the unknown cancerous agent with greater virulence, are questions that can as yet only be answered by hypothesis.

Tracheotomy in Croup and Diphtheria.—The much-vexed question of tracheotomy in certain cases of croup has received renewed attention in a series of papers, three in number, read at the meeting of the British Medical Association, in August, 1879.

Dr. A. H. Corley, of Dublin, after giving a brief resumé of the subject, to show that the operation is now looked on with more favor in Ireland than for-

merly, says that there are three questions involved, viz., the object of its performance, and the time and selection of its performance. While holding to the view that croup, or false membranous laryngo-tracheitis and diphtheria, or false membranous pharyngitis, are simply varieties of the same disease, the writer says that even if they are considered distinct affections, it is of no practical consequence, as the object is the same in either form, viz., the removal of all mechanical obstructions. If the diagnosis between true and false croup is made early enough in the disease, the operation is not attended with much risk.

Mr. R. W. Parker, of London, holds essentially the same views, and says that there have been well-marked examples of croup, in which, after tracheotomy had been performed, there were symptoms of diphtheria. He attributes the high rate of mortality to the following causes: a long-continued use of depressing drugs, such as antimony; deferring the operation until secondary symptoms have developed; neglect of proper after-treatment. He advocates the use of sulphate of copper, in doses of two to five grains to the half-ounce of water every five or ten minutes, and if the obstruction is not speedily removed by free vomiting, tracheotomy should be resorted to without delay. Particular attention must be paid to preventing the formation of false membrane afterward.

Mr. William Thomson, of Dublin, also recommends the operation, and advises the supra-thyroid region, rather than the infra-thyroid, as, by the former method, the risks of wounding vessels are obviated, while no advantage is gained by operating low down, he having performed tracheotomy twice successfully when false membrane existed below the opening. He lays great stress on the necessity of keeping the aperture clear by means of a spray of lactic acid (ten grains to the ounce), or lime-water.

Dr. Buchanan, of Glasgow, has given statistics of fifty cases in which tracheotomy was performed by him. Of this number seventeen were classed as croup, and thirty-three as diphtheria, the latter including all those forms in which there was a deposit of false white membrane on the tonsils, palate, or fauces. Of the seventeen patients operated on for croup ten died, one immediately after the operation, the other deaths taking place after an interval ranging between three hours and four days. In diphtheria the mortality was twenty-one out of thirty-three. Here also one patient died immediately after the operation, the others in from six hours to thirteen days. Dr. B. claims that, according to these statistics, the operation is justifiable, as it was not resorted to until all other means had failed, and it gave the patient the only remaining chance of life.—*Brit. Med. Journal*, April 10, 1880.

Internal Urethrotomy, Followed in one Case by Fatal Suppression of Urine, and in another by Impotence and Atrophy of the Penis.—The following cases are reported by Dr. A. L. Ranney, of this city. In the first, the patient, married and twenty-four years of age, had had gleet for several years, and complained of a gradual diminution in the size of his stream of urine. He also had suffered from retention of urine at various times, which was generally relieved by hot baths, together with the use of a catheter, but as the urinary passage gradually became smaller he was unable to make use of the latter. An examination revealed an extensive induration of the spongy portion of the urethra, and no instruments could be passed to a greater distance than one inch from the meatus, except a whalebone guide which readily entered the bladder; the condition remained the same when he was anæsthetized. The bladder being emptied by means of an aspirator, on the following day, when under the influence of an anæsthetic, whalebone guide was introduced, and internal urethrotomy performed by passing Gouley's urethrotome over it. After this a No. 18 English sound was introduced every other day for ten days, with instructions to continue its use afterward once a week. Fifteen months afterward he again came under observation, suffering from retention of urine. It was found that the anterior stricture had closed. No signs of renal disease were discovered on examining the urine. The anterior stricture was then divided by means of an Otis's urethrotome, the posterior strictures being dilatable and admitting a No. 18 (English) sound; but slight hemorrhage followed the operation. Ten grains of quinine, with one of opium, was given at once, and a hot sitz-bath ordered. Eight hours after he was seized with a chill, in the meantime he had passed no urine, nor was there any found in passing a catheter. All means of relief failed, and he died sixty-seven hours after operation. No false passage was found on post-mortem examination, nor were there any signs of renal disease, except great hyperæmia of the kidney.

The second case was that of a married man, forty-nine years old, who had had gonorrhœa twenty years previously, but never had syphilis. Previous to September, 1879, he complained of partial incontinence of urine, together with frequent desire to void urine, and a slight diminution of the stream. At that date circumcision was performed to relieve the diseased condition, but with no benefit. Internal urethrotomy was then resorted to, being followed by profuse hemorrhage. The latter operation resulted in impotence and a diminution in the size of the penis, there being about this time symptoms of renal disease developing. On examination, March 29, 1880, a circular cicatrix could be seen over the place where circumcision had been performed, a normal amount of integument remaining. The glans penis could neither be seen nor felt, the prepuce hanging over the place where it should have been. Each of the testicles were of normal size, but retracted. The skin of the former penis was indurated, and the flow of urine over it had caused an excoriation. The remnant of the penis measured about one inch, and its circumference was normal. The scrotum was large and flabby, appearing empty, as the testicles were retracted. The corpus spongiosum occupied its normal position in the perineum.—*N. Y. Med. Journ.*, May, 1880.

The Microscopical Investigations of the Havana Yellow Fever Commission.—In speaking of the results of his investigations in reference to the nature of the yellow fever poison, Dr. Sternberg, of the U. S. Army, states that in the examination of the blood of patients affected with the disease, and also of the air of the infected districts, no germ or organism could be found that might give rise to the affection. He is at present engaged in the examination of the atmosphere of New Orleans, in order to determine whether any germs exist in the air when the city is in a comparatively healthy state.—*Reprint from N. O. Med. and Surg. Journ.*, May, 1880.

Mr. Christopher Heath has recently been elected president of the Board of Examiners of the Royal College of Surgeons of England.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

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THE HISTORY OF THE PHILADELPHIA FRAUDULENT MEDICAL COLLEGES.

THE history of the fraudulent medical colleges of Philadelphia is one that is humiliating to every American. It is not alone that such institutions existed, but that they existed and flourished with increasing prosperity for more than a quarter of a century. But though, on this account, some reproach falls upon all, the keenness of disgrace touches especially the city of Philadelphia. Her civil authorities had long known that this business was going on, and that ignorant men were every year being clothed with the responsibilities of the physician. Yet they did nothing in the matter. Her medical men were no less aware of the iniquity. But from her famous colleges, her historic societies, her immortal leaders in medical science, there came no efforts to clear the reputation of the city or the profession. The editor of a penny newspaper has done more than all the organized strength of the profession to destroy the diploma-mills and remove the stain upon the medical pre-eminence of Philadelphia. This is not a very proud moment for the physicians of that city. She has lost her prestige as a legitimate medical centre, and has won the reputation which comes from issuing three thousand spurious diplomas.

There is every prospect now, however, that the career of these colleges is at an end. Legal processes have been instituted against the trustees of one institution; the dean of another is languishing in jail; the proprietors of a third will soon have all their powers destroyed and their charter annulled.

The manufacture of diplomas in Philadelphia began in 1853, at which time the legislature chartered the American College of Medicine. In 1858 the name was changed to the American College of Medicine in Pennsylvania and the Eclectic Medical College of Philadelphia. In the diplomas subsequently issued, sometimes one part of the above title was given and sometimes the other. Various kinds of degrees were conferred, but most of them were medical. Finally a division of the charter and school was made. Dr. Wm. Paine took the American College and Dr. Buchanan the Eclectic Medical College. In 1865 the name of the American College was changed by the legislature to the Philadelphia University of Medicine and Surgery. Under this name the institution has flourished for fifteen years and gained a world-wide reputation. Dr. Buchanan, meanwhile, continued his own college, adding other fictitious names to it. In 1872 the State Legislature investigated these institutions. It was discovered that medical degrees were given after a few days' study, and that degrees of all kinds were sold at moderate rates. An instance was cited in which a degree of LL.D. was conferred on a child two years old. In consequence of the revelations thus made, the charters were repealed. Dr. John Buchanan, however, carried his case to the Supreme Court, and showed that the charter of his Eclectic Medical College was given before the legislature had reserved a right to repeal such instruments. The Court sustained the plea, and the college was kept on its feet. The Philadelphia University of Medicine and Surgery did not stand on the same footing with the other college. The question whether the legislature had a right to repeal its charter is a delicate one, but it seems probable, on the whole, that it had. Dr. Wm. Paine, however, did not choose to go to law about the matter. Instead of this, he took the risk, and continued operations in spite of the repeal.

At about this time the Institution was sold out to a ministerial syndicate of four. These persons ran the "University" with great success, it being under the immediate and able control of the Rev. Mr. Miller, Dean, and the Rev. Mr. Ingraham, President. Degrees of all kinds were issued, some of them very novel and ingenious. One of these confers all the privileges and immunities of a physician upon members of "The University Hospital;" another confers the privileges that belong to a student of medicine in the "University and Hospital of Philadelphia." Since 1859 over six hundred medical degrees have been issued from this "University" alone. Most of these were conferred on persons in the United States. A full list of the names is published in the *Philadelphia Record*, of June 14th. Two hundred and twenty of the persons holding these diplomas live in Pennsylvania and contribute to the elevation of the medical status of that State. New York comes next in number, and has sixty-six. Then follow various Western States, Ohio leading. Ten names are given of persons living in Germany.

While this University was thus in active work, Dr. John Buchanan, with his Eclectic Medical College and other institutions, had been no less busy.

The activity of his traffic and the elasticity of his collegiate nomenclature may be best learned from the following: A reporter of the *Philadelphia Record* bought of him, in open purchase,

One diploma of M.D. from the Eclectic Medical College; two diplomas of M.D. from the American University of Philadelphia; one diploma of M.D. from the Livingstone University of America; one diploma of M.D. from the National Eclectic Medical Association; one degree of D.D. from the Livingstone University; one degree of LL.D. from the American University, and one degree of D.C.L. from the Livingstone University.

Only one of the above institutions, the first, so far as we can learn, has even a chartered existence. The Livingstone University is located in Camden, N. J. An attempt was made to get a charter for it from the New Jersey Legislature. This attempt failed, but Dr. Buchanan ran the University just the same, using the alias of James Murray, D.D., Dean.

In addition to the Paine-Miller and the Buchanan diploma-shops, a quasi-medical college, known as the Electropathic Institute, has been unearthed. By a twenty-five hours' attendance on lectures, and the payment of $50, a degree of Master of Electricity can be obtained, and was so obtained by a *Record* reporter. This degree enables the possessor to treat all diseases, upon the theory taught at the School, a theory which is so unique as to deserve explanation. It is briefly this: No medicine ever cured disease. All diseases are simply disturbances of the electrical currents of the body. Those attended with inflammation, sharp pains, or extraneous growths, are simply evidences of too much positive electricity; those attended with dull pains, degenerations, and tendency to decomposition, are evidences of too much negative electricity. To effect a cure it is only necessary to change the abnormally negative to positive, or *vice versa*. Upon these theories the Electropathic Institute did its work, and graduated its students. Strange to say, it had received the endorsement of a number of prominent and presumably intelligent Philadelphians.

The decline and fall of all these institutions began about six months ago. The Philadelphia University of Medicine and Surgery then received a thorough exposure, and its ministerial supporters were disgraced. Still the civil authorities had no evidence by which they could convict them, and had no money with which to procure evidence and institute proceedings. Meanwhile, Dr. Buchanan, with his colleges, was still selling his diplomas, and evading all attempts to capture him. A plan was, however, at last arranged by the editor of the *Record*, for entrapping the wily President. Applications under assumed names, for diplomas, were sent to him from two distant country towns. After some negotiations the diplomas were forwarded, the money for them paid, and receipts given. Further evidence of sale of diplomas was obtained from other persons, and also by personal investigation of the collegiate building. On the 9th inst. Buchanan was arrested for using the mails to defraud, thus violating the laws of the United States; he was held in $10,000 bonds. On the next day a new indictment was brought against him for violating the State law in selling diplomas. This law, enacted in 1870, makes it a misdemeanor for any institution authorized to confer degrees, to sell such degrees, the penalty being $500 fine, and an imprisonment not exceeding six months. Under this charge Buchanan was held in further bonds of $2,000. Finally, upon the evidence of some of his associate professors, who testified that he had forged their names, he was held in bonds of $1,000 for the crime of forgery.

On June 14th, legal proceedings were begun in the Court of Common Pleas, for judgment of ouster against the trustees and officers of the Philadelphia University of Medicine and Surgery. The attempt will be made to show that, for five years past, this University has exercised powers which it had no right to assume; and that this exercise of power has been of injury to the commonwealth. There are, we believe, some nice legal points in this case, but that the decision will eventually be against the University there can scarcely be a doubt. A similar process will be, or has already been, instituted against the Eclectic Medical College.

The cords of the law are now being tightly drawn around the bogus medical colleges. If there is anything left of them after the law is done, the force of an aroused public sentiment may be relied on to complete the work. Diploma-selling is stopped for the present, and Philadelphia's reputation as a medical centre may cease to have its shady side. But we cannot feel sure that the cure is yet a permanent one. The fact that diplomas can be bought, and that diploma-selling is a paying business, has been widely advertised and will become known to the not overscrupulous, as well as to those who are honest. Permanent protection, though so urgently needed, is not yet insured. It cannot be obtained more surely than by the enactment of a wise law regulating the practice of medicine. With such a law, with civil authorities alert and medical organizations not wholly devoted to secret discussions and punctilious care in their reporting, Philadelphia may be able to purify its reputation and attain a scientific eminence which, if not supreme, will at least not be questionable.

THE INDIANA STATE MEDICAL SOCIETY.

The recent annual meeting of the Indiana State Medical Society, of which a full report appears else-

where in this issue, was a notable one in several respects. The Society held its session for only two days, but during that time accomplished an amount of work, in the way of reading and discussing papers and of practical business, which was extremely creditable to its members and to its activity as an organization. Some thirty or forty papers were read in full, or by title, and referred. It was voted in the beginning that no time should be devoted to social amusements, and that in future the length of the annual sessions should be extended to three days.

A feature of the meeting was the prominence of papers on sanitary matters, and the various branches of State medicine. In the discussions, also, these topics held a large place. The necessity of forming a State Board of Health was forcibly presented, and, while waiting for this, the voluntary organization, known as the Indiana Health Commission, received help and endorsement from the Society. This organization, which is the work of the State Medical Society alone, has now existed for several years and is a great credit to the enterprise and humanity of the medical profession of Indiana. The question of regulating the practice of medicine also received much attention. There was no disagreement as to the need of such regulation, but the proper kind of a law could not be agreed upon, and the Society adjourned, leaving the matter in the hands of a committee.

The contributions to practical medicine, if not of exceptional value, were, for the most part, very creditable and useful papers. On the whole, the Society did very good work, and justified its reputation as an active and wide-awake organization.

Death from Bromide of Ethyl.—The fatal case from inhalation of bromide of ethyl, before referred to in these columns, occurred under the care of Dr. Levis, May 26th. The patient was a young man suffering from stone in the bladder. He had been for several months in Jefferson College Hospital waiting for an operation. He had phthisis, and was much emaciated, but his kidneys and heart were sound. Dr. Levis, at the request of the patient and his friends, operated in order to give him his only chance of recovery. Everything being ready, about a drachm of bromide of ethyl was poured on a cloth and held over his mouth and nose. The patient took a few inspirations, and then quietly stopped breathing before the operation had commenced. Artificial respiration failed to restore him. At the autopsy the lungs showed pulmonary phthisis in an advanced stage, and the bronchi were full of mucopus forced into them by the attempts at artificial respiration. Nothing special was noticed in the gross appearance of the other organs.

London, of late, has been one of the healthiest cities in the world; its death-rate has been from eighteen to twenty per one thousand. Four months before, the same city was one of the most unhealthy of cities, its death-rate running up nearly to forty per thousand.

Reports of Societies.

THE NEW YORK SOCIETY OF GERMAN PHYSICIANS

Stated Meeting, April 23, 1880

Dr. L. Boff, President, in the Chair.

Neurectomy of the optic nerve for irido-cyclitis.

Dr. Greening reported a case of this kind, in which he had performed the operation for sympathetic affection of the eye. He had adopted Knapp's method in that instance. Section of the nerve was practised without previous cutting of any of the muscles of the eyeball. He added, that the nerve should always be cut as far back as possible; section near the bulbus oculi was to be avoided. The advantage of this method was the possibility it afforded of removing a large portion of the optic after eversion of the eyeball. In the same manner all the ciliary nerve-branches could be readily excised.

Dr. Knapp said that he had performed this operation three times during the present week. The last case was one of glioma, and he thought the operation had unquestionably saved the patient's life, since the malady was apparently progressive, and all the diseased portion of the nerve had been successfully excised. He also recommended the employment of a double hook, for grasping the optic nerve, and pulling it forward for inspection, previous to section. This would enable the operator to cut beyond the site of disease. Schweigger's method undoubtedly possessed the advantage of affording much space, but it involved too extensive cutting. This operator, it would be remembered, performed section of the internal rectus muscle, followed by cutting of the optic nerve. Then the eyeball was everted and both oblique muscles severed.

It must be admitted, however, that bulbar eversion was frequently very difficult, often quite impossible of accomplishment, unless the muscles were previously cut. In one of his patients a decided amelioration of the sympathetic ophthalmia had followed the operation. A previous agglutination of the iris had been partially relieved. Still, the permanent benefit remained somewhat doubtful.

Dr. Greening mentioned that neurectomy for endothelioma had been performed by Knapp, as early as 1874.

Gangrene of appendix vermiformis, perforation, diffuse peritonitis.

Dr. Wendt presented a specimen of acute gangrene of the vermiform appendix, apparently following a violent muscular effort. The history was furnished by Dr. Neumer, of the St. Francis Hospital. H. M., æt. 29, U. S., laborer, admitted to hospital, service of Dr. Lellmann, April 19, 1880. Has been in good health all his life, excepting only slight malarial trouble and mild rheumatic attacks. Four days previous to admission, while attempting to lift a heavy stove, he felt a sudden jarring in right iliac fossa. On the following day, without a previous chill, he was seized with severe abdominal pains. On admission patient was quite weak, showed marked abdominal tenderness, especially about the right iliac region, considerable tympanites, persistent vomiting of greenish matter, and some retention of urine. The respiration was chiefly costal, temp. varied from

99 to 102¼°. He sank rapidly, and died on the following day,

An autopsy was made twelve hours after death, and the following appearances noted: Diffuse purulent peritonitis; abdominal cavity contained faecal matter; numerous recent adhesions. Appendix enlarged, black, and gangrenous throughout. At about its middle there was an ulcerative perforation, of the size of a cherry-pit. The inflammatory process had stopped short at the peritoneum, there being no affection of the pelvic areolar tissue. Other organs without noteworthy lesions.

The etiology of the perforation was of some interest. The question arose whether the muscular effort started the whole morbid process, or whether there existed previous disease of the appendix without symptoms. In this instance the peritoneum, although itself extensively and severely involved, assumed the rôle of a protecting membrane, preventing the spread of the inflammation to the adjoining cellular tissue.

Dr. Klotz favored the view of pre-existing ulcer; he did not believe that muscular exertion could cause gangrene and perforation.

TUBERCULAR ULCERS CONFINED TO THE COLON IN A CASE OF PHTHISIS.

Dr. Wendt presented specimens consisting of portions of the lungs and large intestine, taken from a man who died at the St. Francis Hospital. C. M., æt. 42, German, cigarmaker, admitted March 29, 1880. Service of Dr. Lellmann. No hereditary taint. When fourteen years old received an injury resulting in bony anchylosis of right knee-joint. Otherwise enjoyed good health until about two years ago. At that time he began to cough and expectorate sputa streaked with blood. Emaciation also began to show itself. Hæmoptysis denied. Nine months ago profuse diarrhœa supervened and remained uncontrolled to date. Examination revealed bilateral pneumophthisis, slightly enlarged liver, no other abnormities. Progressive exhaustion, death April 9, 1880.

An autopsy was made twelve hours after death. The lungs showed the characteristic lesions of tubercular phthisis. Numerous apex cavities were found. Gastro-intestinal mucous membrane thickened throughout its entire extent, many ecchymoses, enlarged mesenteric glands and tubercular deposits in mesentery and omentum. The colon showed numerous tubercular ulcers, whereas the small intestine contained not a single one.

This patient died with the ordinary symptoms of the common affection pneumo-intestinal tuberculosis. The case was brought forward on account of the somewhat remarkable condition presented by the intestines. It would be remembered that Cohnheim had lately asserted tuberculosis to be a specific contagious disease. Tubercles, cheesy degenerations, and even giant cells were according to that author by no means criteria of the malady. The only trustworthy proof of its existence was the power of infection. According to Cohnheim intestinal ulcers were caused by local infection through the agency of swallowed sputa. Hence we would expect to find the first ulcers in the small intestine, and did in fact commonly meet with them there. In this case the mode of origin must have been a different one, perhaps local irritation superadded to a general infection of the system with tubercular virus. At any rate, Cohnheim's views did not cover every case.

Dr. Jacobi thought that the small intestine caused so rapid a propulsion of its contents, that time for infection there was not given.

Dr. Knapp referred to Cohnheim's experiments and said that foreign bodies generally caused tuberculosis in rabbits. Therefore reliable information could not be obtained from experiments on those animals. He had injected gliomatous matter into rabbit's eyes and invariably obtained inflammatory products, which resembled tubercular deposits.

CROUPOUS PNEUMONIA AND ICTERIC HEPATITIS—SUDDEN DEATH.

Dr. Wendt presented the organs of a man who had died at the German Hospital. F. B., æt. 38, for some time past addicted to drink, never sick before admission, which took place on April 21, 1880. He stated that he had felt ill for ten days, but continued to work until yesterday. Early on the 20th of April or during the night of the 19th, he was suddenly siezed with a severe rigor. This was followed by pains in the right side, dyspnœa, nervous disturbances, and general depression.

A lobar pneumonia of the right side was diagnosticated. The rectal temperature rose to 104°, where it remained unaffected by the treatment, consisting of large doses of quinine (40 grains) and other measures. Cyanotic collapse supervened, stimulants proved unavailing, and he died on the 22d of April, just two days after the commencement of his disease.

The autopsy elicited the following conditions: Abdominal cavity contained about a pint of turbid, icteric fluid. *Situs viscerum* normal, with the exception of a marked hypertrophy of the left lobe of the liver.

The heart. The pericardium contained about three ounces of bloody serum. Subpericardial fat in great abundance. The right auricle was found extremely attenuated and contained yellowish clots, which were rather firmly adherent to its walls. Similar clots were found in the vena cava superior and could be traced into the jugular veins. The other cardiac cavities also contained such coagula, but in less abundance.

The lungs. Croupous pneumonia of middle lobe of right lung, but on pressure there appeared a dirty, faintly fetid, thickish fluid. Remaining lobes and other lung nearly normal; *the kidneys* appeared healthy; *the spleen* was small, the pulpa friable, congested; it was bound down by firm adhesions to neighboring structures; *the liver* of firm consistency, much enlarged, intensely yellow, the acinous markings obscure; *the bladder* contained about six ounces of icteric urine, slight thickening of its walls; *the gastrointestinal canal* appeared normal; *the brain* could not be examined.

The cardiac appearances were remarkable, the walls of the right auricle were so extremely attenuated at one point, as to justify the notion of an imminent rupture. The liver presented the first stage of an icteric hepatitis. The disease ran a course which corresponded more nearly with a severe infectious malady than with an ordinary croupous pneumonia.

Dr. Jaconi questioned with regard to the condition of the blood. He thought that the heart appearances pointed to a possible leucocythæmia, and begged for a microscopic examination to determine more precisely the nature of the malady.

ATAXIA WITHOUT PARALYSIS.

Dr. Jaconi exhibited a young man who was afflicted with that rare form of ataxia which was unaccompa-

and by parasitic manifestations. The patient had probably had diphtheria. His sensibility had returned unimpaired, but the tendon reflexes had entirely disappeared. The patellar phenomenon was altogether absent. Appropriate treatment had been followed by slight improvement, but the tendon reflexes had not returned.

PROGRESSIVE CONTRACTION OF STOMACH WITH GASTRIC HYPERTROPHY.

Dr. Jacobi showed the above specimen, and gave the following history: A man, aged two years old, who was in former years rather addicted to gluttony, had suffered for six months from frequent attacks of vomiting. The patient gradually grew worse, and rapid emaciation set in. The spasmodic vomiting did not completely empty the stomach of its contents, for until quite recently, termed faces were evacuated. The stomach, however, did not largely participate in digestion, since unaltered ingesta were rejected some fifteen minutes after a meal. The diagnosis was not definitely established. Cancer, disseminated in small patches through the gastric walls, was thought of. Also, dilatation of the stomach, following gastritis. In the latter case, it was thought possible that peritonitic adhesions had bound down the organ to neighboring structures, thus causing abnormal tension and producing the observed symptoms.

An autopsy revealed a condition of things, of which very inadequate accounts are given by the various text-books. The stomach was found to be shrunken to the size of a loop of large intestine. It was concentrically hypertrophied, a condition which might be regarded as the final stage of a subacute gastritis, with superficial ulceration. The walls of the stomach, although in general considerably thickened, showed also areas of marked attenuation. The cardiac extremity was the seat of several cicatricial spots, and at the œsophageal junction, a hard lymphatic gland was found. This enlarged gland was presumably in a condition of sarcomatous degeneration.

Similar gastric contractions occurred in conjunction with certain œsophageal disorders, and derangements at the cardiac orifice caused by cancer, or cicatrical retraction. The symptoms were always more or less vague, and devoid of pathognomonic import.

Dr. Langmann thought the case was one of contraction incident to phlegmonous gastritis.

Dr. Wendt observed that the pathologico-anatomical appearances were opposed to the probability of recent phlegmonous gastritis. In such cases purulent matter could be obtained on pressure of the gastric walls.

Dr. Jacobi agreed with Dr. Wendt, stating that the patient had never been sufficiently ill to warrant the assumption of a phlegmonous gastritis. The patient had not even been confined to his bed until shortly before his death.

EXTIRPATION OF ONE LATERAL HALF OF LARYNX, PHARYNX, AND BASE OF TONGUE.

Dr. Gerster showed specimens removed as above from a patient at the German Hospital, and remarked as follows: During the month of November, 1879, Dr. Gruening found in a man, aged 50, a flat ulcer situated near the laryngeal entrance. Specific treatment was resorted to in order to give the patient the benefit of the doubt as to the specific or non-specific character of the ulcer. The ulcer spreading, an operation was decided upon. Preliminary tracheotomy was done on Jan. 19, 1880, and on the 5th of March the operation was performed in the following manner: after ligature of the lingual artery on the right side, the larynx was exposed by incision in the median line. Then the right half of the thyroid cartilage together with the true and false vocal chords, the right portion of the pharynx, the right half of the hyoid bone and a part of the base of the tongue, had to be removed. In spite of the digital tamponnage, some difficulty was experienced, on account of the final putrescence of Trendelenburg's tampon-cannula. This cannula was constructed for introduction into the lower part of the larynx of small species, in order to prevent the aspiration of blood. After the insertion of an œsophageal tube, the wound was washed with a 10 per cent. solution of chloride of zinc, and filled with small pledgets of Lister's gauze. The operation was well borne, nutrition was readily sustained by feeding through the tube, and the patient was up and about on the 20th day after the operation. He had gained six and a half pounds. The patient was now able to articulate by closing the opening in his neck. His voice was a harsh, rather deep whisper, but was distinctly audible. Deglutition was still accompanied by the entrance of ingesta into the respiratory passages. This fact was explained by the extensive deficiency of the pharynx and base of the tongue, as well as by the circumstance that the remaining half of the larynx obviated the possibility of approach between the tongue and the entrance to the trachea. The progress of cicatrical retraction would doubtless remove this unpleasantness. The microscopical examination of the tumor revealed an adeno-fibro-sarcoma, which was probably identical with the tumor described by Maas (*Arch. für klin. Chir.*, vol. xix., p. 507) as an adeno-fibrous carcinomatoma.

Dr. Curtman showed his magnetic apparatus (*vide* Med. Record, May 1, 1880, p. 484), and illustrated its practicability by demonstration.

INDIANA STATE MEDICAL SOCIETY.

Thirtieth Annual Session, held at Indianapolis,
May 19 and 20, 1880.

(Special Report for The Medical Record.)

Dr. G. R. Weist, President, in the Chair.—First Day.

The Convention was opened with prayer by R. Ansgus, D.D., LL.D. A committee of five on credentials was immediately appointed. Dr. E. S. Elder, Chairman of the Committee on Arrangements, made his report, detailing the arrangements for the session with hotels, railroads, etc., and referring to the large number of papers on State Medicine that had been handed in.

The President, Dr. J. R. Weist, then stated that the character of his formal annual address would prevent his referring in it to any practical recommendations for the action of the Society. He would, therefore, make such recommendation at that time. This he did, presenting his points under four heads:

PRACTICAL SUGGESTIONS.

1. As to the length of the session, every year the number and value of the papers presented to the Society increased. The discussions upon these were often extremely valuable, but at present there was scarcely any time for such discussion. For this reason it seemed imperatively necessary to increase the length of the annual session to three or four days, if

the Society was ever to fairly represent the status of its membership or the character of the work of which the medical profession of Indiana was capable. Another reason for lengthening the session was, that at present there was no time whatever for social features that might be, in his opinion, introduced into the annual meetings with great advantage.

2. In regard to printing papers in the transactions, he said that the printing in the volume of transactions of the Society the papers read at its meetings entailed a useless expenditure of money, failing as it certainly did of bringing either notoriety or honor to their authors. It was well known that the transactions of State societies and of the National Association are not generally read, even by the members.

A good paper, then, thus printed, was practically lost to the profession. Medical journals of wide circulation are willing, he said, to publish all papers of real value offered to them. Give the authors of papers presented to the Society permission to publish them where they please, placing after the title, "read before the Indiana State Medical Society," and all valuable papers will, at an early day, be properly placed before the profession and attract the attention they deserve. Papers that respectable medical journals will not publish are not deserving of a place in the transactions.

The money thus saved might be well expended in rewarding such of the members as, by original research, add new facts to the store of professional knowledge.

3. As to the importance of county societies, it is desirable that the State Society use all proper means to impress upon the minds of its members the importance of giving great attention to their county societies, in order to make them the best possible, and to make it apparent that all the energy spent upon district, inter-state, and other similar societies, is a loss to the county organization, and therefore to the State Society.

4. As to representation in the American Medical Association. It having been the custom for the county societies, as well as the State Society, to appoint delegates to the American Medical Association, the profession of the State has, he said, sent to this national organization twice as many delegates as it is entitled to send. This is clearly wrong, and if continued, will lead to misunderstanding and harm. The proper plan would be for the county societies to nominate from among their own members the number of delegates to which they are entitled by law, while the State Society appoints them. All parts of the State may then be represented in the National Association, and the delegates at the same time have the honor of being State delegates.

Drs. Commons, Boyd, and Charleton were appointed a committee to consider the suggestions submitted by the President.

REPORTS.

Dr. G. V. Woolen, Secretary, reported that he had collected from the various County Societies, during the past year, $1,023. He also reported favorably as to the credentials of Brown, Franklin, Johnson, and Owen counties.

Dr. F. J. Van Vorhis, Librarian, made a brief report.

Dr. Alison Maxwell, Chairman of the Committee on Publication, reported that 1,100 copies of the Transactions of the Society for 1879 had been printed, at a cost of $599.60. Copies had been sent to prominent medical journals, fourteen in number. Two of these journals had reviewed the volume, one had simply acknowledged its receipt, the rest had paid no attention to it.

The following were appointed a committee on ethics: Drs. James F. Hibberd, Richmond; J. W. F. Gerrish, M. Sexton, P. H. Jameson, G. L. Andrews. The following were appointed a committee on medical assurance: Drs. J. R. Beck, Fort Wayne; F. S. Newcomer, N. B. Howard, Sr. Drs. L. D. Waterman, Indianapolis; Benj. Newland, F. W. Beard, P. McNabb, and J. T. Bells, were appointed a committee on finance.

A paper was then read by Dr. I. C. Walker, of Indianapolis, on

A REMARKABLE CASE OF CEREBRAL TUMOR.

The patient, a man, aged 59, was attacked with vomiting, headache, insomnia, and slight mental aberration. Temperature slightly raised, pupils normal, articulation distinct; no constipation, no disturbance of motion or sensation anywhere. The case continuing, there were gradually developed symptoms of compression: dilated pupils, slow pulse, stertorous breathing, but no paralysis. The patient died, but more, it seemed, from gradual exhaustion than from direct effect of compression of the brain. Post-mortem showed a large amount of serum (℥ ii.) in the cavity of the arachnoid. A cystic tumor was discovered on the left hemisphere, situated immediately to the left of the longitudinal fissure, covering the most of the upper and lateral surfaces of the middle and anterior lobes, weighing three and one-eighth ounces; sack one and one-eighth ounce, and measuring five and three-fourths inches in length, two and one-half inches in width, and one and one-half inch in depth. This was situated under the dura mater and above the visceral arachnoid, with a marginal attachment to the falx cerebri at the upper edge of the longitudinal fissure. The outer margin, ends, upper and under surfaces were free everywhere from adhesions of any kind except at the point named. This patient suffered through life at irregular intervals with affections of the head and attacks of vomiting. He was well developed physically, and mentally had much more than average intelligence, business capacity, energy and force of character, which remained unimpaired until his last illness. Dr. Walker believed that the tumor began when the patient was twelve years old. At that time he had received a blow on the head, and had suffered from cerebral symptoms at intervals ever since.

The paper was discussed by Drs. J. H. Woodburn, Hanghton, and others.

Dr. William Lomax, Marion, read an interesting report of a case of Injury to the Head, with Fracture of the Skull. The paper was referred to the Committee on Publication, to be printed in the transactions of the Society.

In the afternoon of the first day the session opened with a report of the Select Committee by its Chairman, Dr. J. F. Hibberd, on ex-President Newland's address last year on

STATE MEDICINE.

Three points presented by Dr. Newland were specially examined. These were in regard to the duty of the State:

1. To foster and protect the health of her citizens.

2. In some way to so label proprietary medicines that all who choose may know their composition.

3. Within certain limits to inquire into the preten-

sions of practitioners of medicine, and point out the qualified to public recognition.

1. In regard to the first point, the committee presented concisely but forcibly arguments for the establishment of a State Board of Health. The responsibility which lays upon the medical profession of strongly urging the creation of such a board was also shown.

2. Declaring the evil of proprietary medicines, it was concluded that any legal measures restricting or forbidding such traffic would be impracticable. It was affirmed that the evil was not so great as it might be, because most patent medicines were not positively dangerous. In conclusion, it was said:

"The best method of dealing with this difficult problem at this time that suggests itself to us is to call the attention of a competent State Board of Health to it, requiring that they gather the facts concerning it, and thoughtfully work out a conclusion that shall indicate active interference, or, what seems more likely, determine that for the present, at least, the condition of *laissez faire* is best."

3. As regards regulating the practice of medicine, the committee expressed their belief that it was the duty of the State to see it done.

The views of the committee were summarized in the following resolutions:

Resolved, as the sense of the Indiana State Medical Society: 1. That the time has fully arrived when the people of Indiana are entitled to have the benefit of sanitary science applied to public affairs for the maintenance of the general health, and that it is the reasonable duty of the Legislature to establish a State Board of Health, with ample power and means to apply existing sanitary science, and to aid in its further development; and that this board should be composed of men noted for their acquirements in medical hygienic engineering, legal and executive knowledge.

2. That the matter of proprietary medicines and patent nostrums should be turned over to the State Board of Health for their thoughtful consideration.

3. That it is the duty of the State of Indiana, through her Legislature, to establish boards to inquire into the qualifications of all persons claiming the right to practice medicine in the State; and that while all should be required to have a competent knowledge of biological laws and elementary medicine, each class or school of doctors should be examined by a board composed of members of its own guild.

Dr. J. D. Gatch, of Lawrenceburg, then read a report on "Harmony and Associated Action in Connection with State Medicine." The paper was lengthy, able, and comprehensive, and was listened to with the closest attention.

The Committee on Credentials presented resolutions, which were adopted, refusing admission to the delegates from Fulton County Medical Society, on the ground that the said Society was composed, in part, of irregular practitioners.

Papers were read by Dr. J. W. Hervey, of Indianapolis, on "Some of the Unsolved Problems in Public Hygiene and Synteretic Jurisprudence," and by Dr. J. Van Voorhis, B.L., of Indianapolis, on "Expert Evidence." Both papers were well received.

Dr. Thad. M. Stevens, of Indianapolis, submitted the report of the

INDIANA HEALTH COMMISSION.

The history of the organization, which originated in the State Medical Society, and is solely the work of medical men, was given. It had recently extended its scope by the formation of District Health Commissions, thirteen in all, throughout the State. It hoped to supply, in part, the lack of a State Board of Health, and to stimulate a general interest in sanitary matters.

The following resolution was offered for adoption:

Resolved, That the Indiana State Medical Society require each county society in the State, to require of each of its members to keep a record of births, and sex of those born, of deaths, and causes of death, as occurring in their practice, and a note of every epidemic or endemic disease in their precinct, also such other facts as they may deem proper in connection with vital and sanitary statistics, and report the same to the local commission as instituted by the State Health Commission, so that the said local commission can report the same to the State Health Commission for the purpose of a condensed report by it to the State Medical Society, and that each county society shall cause to have printed blanks to each of its members according to a form to be furnished by the State Health Commission, and that the Secretary of this Society notify each county society of this action.

Dr. Stevens then read a carefully prepared paper on "The Sanitary Survey of Indianapolis." He showed that the city presented many hygienic defects, but was capable of being made a very healthy place.

Dr. Mary F. Thomas read a paper advocating "Women Physicians in Lunatic Asylums." This, with the three preceding papers, was referred to the Health Commission.

Dr. Stevens also read a paper on "What are the Essentials to Regulate the Practice of Medicine?" and Dr. S. S. Boyd, of Dublin, a paper on "Medical Legislation."

Dr. John M. Kitchen, of Indianapolis, presented to the Society a memorial of the Marion County Society, asking the Legislature to regulate the practice of medicine, and submitting a bill providing measures for this purpose.

Dr. J. F. Hibberd, of Richmond, argued against the Marion County plan, and offered another as a substitute. The chief points of this were embodied in the following resolution which was adopted:

Resolved, by the Indiana State Medical Society, That a law to regulate the practice of medicine in Indiana should require one board of examiners for each system or school of medicine in the State that has a State society or organization; that the law should authorize each State society or organization to select the members of the board of examiners for practitioners of its own professional faith; that a law to regulate the practice of medicine in Indiana should require every person who enters the profession, after the law takes effect, to be examined by a board of examiners, but such person must be a graduate of a medical college in good repute to entitle him to an examination; that a select committee of five be appointed to embody the principles adopted in the foregoing resolution in a bill for a law with all necessary details, to be submitted, if possible, to this session of the Society for its approval, with a view to having it presented to the next Legislature as a bill for a law to regulate the practice of medicine in Indiana which has the approval and support of the Indiana State Medical Society.

The following were then named as the special committee on the resolutions, and the afternoon session closed: Drs. Hibberd, P. H. Jameson, Gerrish, Edmunds, and Beard.

At the evening session President J. R. Weist delivered the annual address on

PROBLEMS IN RELATION TO THE PREVENTION OF DISEASE.

The address was an eloquent and impressive presentation of the importance to the State of attention to the health of its people. Speaking of his own State, he said:

"The annual loss to our own State from preventable sickness and mortality, could it be correctly calculated, would create astonishment. A calculation based on the same data used in estimating the preventable loss of life and money in the United States by disease, gives this result: an annual unnecessary loss of more than 5,000 lives and more than 6,000 persons constantly sick from causes which are preventable; this sickness and mortality entailing an annual loss of more than $4,000,000."

Dr. Weist also referred to Dr. Benj. Lee's figures, by which it was estimated that the cost of a large epidemic is $2,000,000; that of preventing it, $800,000.

On the

SECOND DAY

the special committee appointed to consider the suggestions of President Weist in regard to business of special importance reported in favor of extending the sessions from two days to three days. The committee also favor restricting the Society to the consideration of medical matters and topics allied thereto, and oppose anything tending to give the annual gathering the nature of a social meeting. The sessions were to be strictly for work.

A paper was then read by Dr. William Commons on "Ergot, Its Use and Abuse."

Dr. W. R. McMahan read an article on "The Active Form of Pernicious Fever." This paper also attracted considerable interest, and was referred to the Committee on Publication.

The Committee on Ethics having reported on various charges against county societies and individuals, further papers were read by Dr. C. B. Stemen, of Ft. Wayne, on "Gall Stones, with a Death;" by Dr. Joseph R. Beck, of Ft. Wayne, on "Two Cases of Tumors of the Anterior Vaginal Wall;" by Dr. J. S. McMurrey, of Frankfort, on "Death from Heart Clot."

THE ELECTION OF OFFICERS

for the ensuing year then took place, resulting as follows: President, Dr. Thomas B. Harvey; Vice-President, Dr. John D. Mitchell; Secretary, Dr. E. S. Elder; Corresponding Secretary, Dr. G. W. Burton; Treasurer, Dr. H. W. H. Kemper; Librarian, Dr. F. J. Van Vorhis.

After this the Society had a slight diversion, Dr. J. R. Beck being publicly reprimanded by the President for wantonly assaulting Dr. W. D. Wood.

A number of papers were referred to the Committee on Publication without reading.

Dr. Stevens, Secretary of the State Health Commission, reported back the papers referred to that commission, with recommendation to publish. It was further recommended, and the recommendation was endorsed, that the President appoint a committee of five to present the subject of women physicians in hospitals for insane women to the State Legislature.

At the close of the report, delegates were elected to the National Convention.

In the afternoon session it was ordered that 3,000 copies of the budget of the State Health Commission be printed for circulation.

Dr. W. S. Haymond, of Indianapolis, read a paper on "Human Longevity."

Dr. J. R. Beck, from the Committee on Necrology, reported the death of eight members during the past year.

A number of papers were presented and referred to the Committee on Publication without reading.

The subject of medical legislation engaged a large share of the closing hours. In the discussion,

Dr. R. N. Todd rose on a question of privilege. The report of Dr. J. F. Hibberd, of the day before, on legislation necessary to regulate the practice of medicine in Indiana, he said, contained most offensive matter regarding the motives of the medical colleges of Indiana. He defended the colleges from the attack of Dr. Hibberd, and disclaimed the motives that gentleman had attributed to them in his remarks.

Dr. I. C. Walker also rose to a question of privilege concerning the same subject, and after a few remarks moved that the objectionable sentences be stricken from Dr. Hibberd's report. Carried.

Considerable debate followed as to what kind of a bill for the regulation of the practice of medicine should be presented to the Legislature. It was finally voted that the Committee on Medical Legislation be authorized to draft the needed bill, and report at the next meeting of the Society.

The Society then adjourned, to meet the third Thursday in May, 1881.

MICHIGAN STATE MEDICAL SOCIETY.

TRANSACTIONS OF THE FIFTEENTH ANNUAL MEETING,

Held in Grand Rapids, May 12 and 13, 1880.

(Special report for THE MEDICAL RECORD.)

The members of the Society assembled in the Superior Court room at ten A.M., and was called to order by Dr. Geo. K. Johnson, President. Prayer was offered by Rev. J. Morgan Smith, of Grand Rapids, after which Dr. J. O. Edie, member of the Executive Committee, welcomed the Society, in a few appropriate remarks, to the hospitalities of the physicians and citizens of the Valley City.

The roll was then called by the Secretary, when a large number of members responded to their names.

The Executive Committee reported a programme for the entire meeting, and gave notice that cards of invitations to receptions to be given the Society by Dr. and Mrs. G. K. Johnson and Mr. and Mrs. F. B. Gilbert, on Wednesday evening, would be distributed to the members of the Society in attendance and their ladies.

Several physicians, not members of the Society, were proposed for membership, and their applications were duly referred.

Dr. Bingham, of Brighton, moved that a committee of five be appointed to consider the matter of reorganization into a delegate body, and give their views upon the subject in a full report at the next meeting. Adopted.

THE USE OF ALCOHOL IN MEDICINE.

The Secretary read the following communication from the Woman's State Christian Temperance Union:

"1. Is the use of alcoholic liquors an absolute necessity in the practice of medicine?

"2. Is not their prescription in great danger not only of resulting in their self-prescribed use as a medicine, but also of fostering a habit of their use as a beverage?

"3. Is not the danger of their use as a medicine, resulting in their abuse as a beverage, so great as to demand from the medical profession the utmost care in their use?

"4. Is the use of beer as a tonic, either in sickness or in health, a necessity?

"As mothers and wives who entrust to your healing care not only our own health and lives, but the health and lives of those whose well-being is of inestimable value to us, we appeal to you to use your utmost influence to protect us and them from the danger which threatens us from the free and sometimes reckless prescription of alcoholic liquors.

"We ask of your honorable and learned association such an expression on this subject as shall influence the medical faculty to exercise such care in the use of this terrible agent of evil as may avert such deplorable consequences."

After considerable discussion, the communication was referred to a committee of five, with a request to report at the next meeting.

Dr. Sharra, of Detroit, read a paper

ON INHALATION IN THE TREATMENT OF DISEASES OF THE RESPIRATORY TRACT.

The writer believes that success in the treatment by this method depends upon the careful selection of both the patient and the agent to be employed. The effect of a given inhalation depends upon the temperature, moisture, and amount of exercise required, as much as upon the medicament used. The respiratory tract is intended to receive only ordinary air, and it is not astonishing that ill effects are often produced by the inhalation of medicated air. In many acute affections of the bronchial tubes and lungs, the heat and moisture of the vapor inhalation will cause such swelling and irritation of the mucous membrane as to greatly aggravate the diseased condition. In other cases the muscular effort is productive of mischievous exhaustion.

The paper speaks of four different methods of inhalation. Atomization is the most useful in diseases of the upper air passages; the steam apparatus being preferable for the larynx, trachea, and nose.

Vapor inhalations consisting of air inspired through medicated hot water, the writer finds very beneficial in those varieties of nasal, pharyngeal, and bronchial catarrh characterized by dryness of the mucous membrane; in cases of thickening of the mucous membrane after acute laryngitis and bronchitis; in chronic bronchitis and fibroid phthisis with extensive structural change in the adenoid tissue; and in chronic catarrhal pneumonia and bronchitis attended with incessant cough. He thinks that great harm is sometimes done by the use of these inhalations in some cases where there is great irritability of the mucous membrane.

Under the head of the inhalation of gases, he speaks of the treatment of pulmonary phthisis by nitrogen diluted with atmospheric air. The gas is generated in a large inhaling apparatus by the action of a solution of ferrous sulphate on iron-filings. He has found it beneficial in some cases; its action is sedative and it is therefore most useful in acute and chronic inflammatory conditions with irritability of the terminal nerve filaments. He thinks the inhalation of the fumes of burning drugs, and slowly evaporating tinctures, balsams, etc., will come into more general use. The method is easy of application and can be used without fatigue. These dry inhalations are best borne in chronic affections attended by excessive expectoration.

In regard to the philosophy of the action of this method, the writer believes that the systemic effect of a drug introduced by inhalation is not produced through the medium of the blood, but by its local effect upon the terminal nerve filaments of the pulmonary and bronchial mucous membrane.

Hence the [illegible] of this mode of medication rests more upon the [illegible] than the general effect produced, and it cannot be relied upon for curative results without attendant dietetic and hygienic treatment.

Dr. Bigelow then read a paper written by Dr. J. J. Mulheron, entitled

RHEUMATISM *vs.* LEAD-POISONING.

He said that rheumatism is often the result of lead-poisoning. Lead colic, when it does occur, is certainly pathognomonic, but is by no means a necessary symptom of the poisoning. The symptoms are often heavily marked. We have a history of flesh, malaise, dullness of spirits, constipation. How often this condition is treated with a blue pill at night, followed with a dose of salts in the morning. The sulphate of magnesia is the best possible remedy for the lead-poisoning, relieving the bowels and forming an innocuous sulphate with what remains. The physician who gives this, does often better than he knows. If, however, the trouble is not nipped in the bud, rheumatism is diagnosed and treated with the "sure cases." Still the symptoms know no abatement until the patient goes to some sulphur spring and is cured. Mrs. P—— had such symptoms during the winter of 1877, and was advised to go to Mt. Clemens and take some sulphur baths. After a short stay she was thoroughly cured. An examination of the cooking utensils in this lady's house revealed the presence of lead.

Dr. H. O. Walker, of Detroit, read a paper upon

LITHOLAPAXY AND LITHOTOMY,

with a report of eight cases of removal of stone from the bladder, four by each method, with a death in each series. In the procedure by lithotapaxy, three of the cases resulted happily, with no untoward symptoms.

Case I.—Aged 67 years; date of symptoms, twenty-five years. Had had operation for lithotomy and repeated crushings, without permanent relief, when rapid lithotrity was performed. Time of operation, one hour and ten minutes. Sixty grains of phosphatic stone removed.

Case II.—Aged 17; date of symptoms, two years. No. 29 F. evacuating tube used. Time, one hour and thirty minutes. Amount of stone removed, 347 grains.

Case III.—Aged 27; date of symptoms, seven years. Time of operation, one hour and twenty minutes. Amount removed, 287 grains.

Case IV.—Died. Result of injury to prostate. The doctor exhibited Bigelow's lithotrite and evacuating apparatus, with which he had made his operations. He also exhibited a new urethrotome, which he had devised for the purpose of cutting "large-sized strictures."

The meeting then adjourned to 2 P. M.

AFTERNOON SESSION.

The meeting was called to order by the president. After roll-call a large number of proposals for mem-

bership was made and referred to the Committee on Admissions.

Dr. G. K. Johnson, President of the Society, next read his annual address, the subject of which was heat, or thermic force.

A vote of thanks was duly tendered for the same.

Dr. Eugene Smith, of Detroit, then read a very interesting paper on "Inflammation of the Eyes in New Born Babies," claiming, with proper treatment and care, that inflammation could always be cured.

Considerable discussion followed, in which Prof. Jones, of Chicago, Drs. Pratt, of Kalamazoo, Fuller, of Grand Rapids, Brodie, of Detroit, Bennett, of Coldwater, and Hitchcock, of Kalamazoo, took part. On motion, the paper was referred to the usual committee.

Dr. A. F. Kinne, of Ypsilanti, read an interesting paper on "Eclampsia from Uræmic Toxæmia, Promptly Relieved by the Emetic Operation of the Veratrum Viride." On motion, referred to the Committee on Publication.

DUBOISIA MYOPOROIDES.

Professor C. J. Lundy, M.D., of Detroit, read a paper on "Duboisia Myoporoides," a "New Therapeutic Agent in Diseases of the Eye." Preparations of the extract and of the sulphate of duboisia were exhibited to the association. His experiments show that it dilates the pupil rapidly and completely, and thoroughly paralyses the muscle of accommodation. Its action is more prompt than that of atropia. When a solution of the sulphate containing two grains to the ounce was employed, the pupil began to dilate in four minutes in some cases, and dilatation was ad maximum in fifteen to eighteen minutes. With weaker solutions dilatation of the pupil did not begin for fifteen or twenty minutes, or longer. Paralysis of the ciliary muscle was easily produced by a two-grain solution of the sulphate of duboisia. Weak solutions produced slight paresis of the ciliary muscle.

The pupil remained dilated from forty-eight hours to six or seven days, according to the strength of the solution employed.

Paretic conditions of the ciliary muscle disappeared in twenty-four hours, but when paralysis was complete, the muscle did not regain its contractile power for four or six days.

Weak solutions which dilated the pupil very widely scarcely affected the accommodation. When four to six drops of a two-grain solution of the sulphate of duboisia were instilled into each eye, in the course of an hour the following conditions were observed: Rapid and complete dilatation of the pupil, paralysis of accommodation, more or less retinal hyperæmia, dizziness, a staggering gait on attempting to walk, a certain degree of intoxication, confusion of ideas, drowsiness, flushing of the head and face, dryness of the skin, diminished salivary secretion, and in a few instances marked dryness of the mouth and throat, slight elevation of temperature, and increase of the pulse rate. Had used duboisia in central perforating ulcer of the cornea, in phlyctenular keratitis, in acute iritis, in spasm of accommodation, to paralyze the ciliary muscle, and in cases where atropia produced irritation. It was contraindicated in peripheral perforating ulcer of the cornea, and, from its action on the intra-ocular circulation, it was also contraindicated in glaucoma, in choroidal inflammations, of whatever nature, and in inflammation of the retina.

Referred to publishing committee.

A paper was then read by Wm. H. DeCamp, M.D., of Grand Rapids, entitled

THE ACTUAL CAUTERY.

The author said that it is well known by all members present that the *actual cautery* has been recorded among the early remedial agents in surgery.

In looking up its early history, he found it first mentioned at a period about 500 years B.C. It was then used for arresting hemorrhage, and for little else. For a remedy or agent in surgery to keep its place in the list of standard remedies for a period of 2,400 years was enough to prove its usefulness and superiority over many others, less obnoxious to the minds of those suffering from maladies demanding its use.

It is not his purpose to discuss its many good, or other qualities, or show a differential value between it and other agents; but simply to give to the society his experience and knowledge of the different forms of the same, and the improvements of the present day in instruments capable of producing and maintaining the requisite degree of heat required for the surgeon's use.

Modern writers spoke most highly of the electric cautery for procuring this result. This means of heating by electricity was one that could be used to better advantage than any other.

From an examination of the standard surgical authorities of the present day, he was satisfied they gave the preference to this means of procuring the heat to any other mode. This he thought was true for uses upon the uterus or fauces where any radiated heat is inadmissible. The kind most highly spoken of was that of Middeldorpff's, of Breslau. The portable instruments were not sufficiently active to give good results. The instrument that was as near to a perfect one as we well can imagine is that known as the Cantère Paquelin, as it is made by G. Tiemann & Co., with its improvements and attachments. The working of this instrument in his hands lead him to place it as the first in importance to all others.

The paper was discussed by Drs. Maclean and Fuller, and on motion was referred to the publication committee.

Dr. I. S. Hamilton, of Tecumseh, Dr. D. S. Hall, of East Saginaw, and Dr. Eleazer Hall, of Saline, were, by a vote of the Society, made honorary members.

The meeting then adjourned till 10 A.M. next day.

Second Day—Morning Session.

The meeting was called to order by the President and the roll called by the Secretary, when Dr. Foster Pratt, of Kalamazoo, chairman of a committee appointed at the last annual meeting to report upon President Cox's address on "Criminal Abortion" proceeded to read his report.

The committee claimed that the moral sense of the community was greatly debased on this subject, and should be quickened to make a higher and truer estimate of the enormity of this crime against all moral and physical laws. The medical profession condemn it, nature herself pleads against it, human laws forbid it, but fashion, laziness, and sordid selfishness unite to plead for it and with far too much success. The report was an able one, and reflected credit upon the committee. It was on motion referred to the Committee on Publication, with instructions to publish.

THE PROGRESS OF SURGERY.

Dr. Theodore A. McGraw, of Detroit, Chairman of the Committee on Surgery, read quite a lengthy and exceedingly interesting and able paper. The

paper discussed the general results due to advances in surgical knowledge, without considering the minute details, but especially the influence which the recent developments of science have had upon the profession itself.

He urged the necessity of popularizing operative surgery, to be done by the mass of the profession as opposed to allowing nearly all of it to drift to large centres of population to be done by specialists. He said that the late war in America had helped to educate a vast number of surgeons, and that as a consequence there has never been an age or a nation in which operative surgery was so practised by the whole profession as in the nation since the war. He spoke, however, of the unfavorable tendencies which threaten to transfer the control of many branches of surgery from the general profession to specialists. Ophthalmology, he said, was fast becoming as thoroughly special as dentistry. Laryngology and gynæcology has already fallen largely into the hands of a select few. It is both to the duty and the profession an exceedingly important question, how far the profession should yield to this tendency. He urged that the general practitioner should not neglect and abandon altogether any field of practice, but qualify himself to practice any part of the medical art, as there are thousands of emergencies constantly happening in everyday practice which require immediate and skilled attention. The wounded artery, the compound fracture or dislocation, must be treated skilfully and without delay. The strangulated hernia demands prompt attention, and the extravasated urine must be speedily evacuated. The prompt recognition and proper treatment of a cancerous lump in the breast, the early stage of hip disease and periostitis, may be relieved and the patients rescued from death or saved long years of suffering, by availing themselves of the services of a skilled surgeon at home, while it would be impracticable for them to receive the protracted course of treatment necessary at a long distance from home. He also urged in favor of home treatment, the genial influences of friends, pure country air, and his accustomed habits. While acknowledging that the one who has performed a certain operation many times may have learned things which never would have otherwise come to him, the limits of special practice, on the other hand, tend inevitably, to a certain extent at least, to dwarf the man. What he gains in technical knowledge he loses in grasp of principles. He urged that the general practitioner should be skilled in the use of the ophthalmoscope and laryngoscope, whose uses have rendered it possible to make ophthalmology and laryngology specialties. Of the hindrances in the way of the general practitioner of surgery, he spoke of the numerous costly instruments he might have to purchase, never to use but once, and the new methods of operating, requiring much more of the surgeon's time than was formerly required. He said, whatever else may be said of Lister's antiseptic treatment, it was not true that it can be applied properly without great expenditure of time. In a hospital where trained assistants have everything ready, all passes off quick, but in private practice, the time consumed in getting the spray apparatus to work would be sufficient, under the old system, to have dressed the wound, etc. The antiseptic method, too, demanded greater watchfulness, as the dressings must be changed the moment there were indications of threatened exposure to the ingress of septic germs, and especially as they must always be attended to by the surgeon himself or a trained assistant. According to German surgeons the preparation of a patient for a capital surgical operation is a formidable affair. The surgeon, before operating, takes a complete bath and changes his clothing, requiring the same of his assistant and the bystanders; the operating room being thoroughly disinfected, also all sponges, instruments, etc. The success of these practitioners has been wonderful, hence it was a severe objurgation upon every surgeon to do likewise. Imagine the revolution this adoption would cause in American practice. Should the antiseptic system prevail it will force the surgeon out of general practice, as he cannot comply with the above who is called to cases of puerperal fever, measles, etc. It will not do to bathe in the morning, and afterwards visit patients, perhaps becoming contaminated, to operate at noon. He must commence the operation as free from contagion as if life hung on the very dust in the air. Looked at in this light, the fate of Listerism would seem to be one of great import to the profession. Some simple methods of killing bacteria may be invented, however, which would save time and labor. With a certain few operations the difficulties as to render necessary a long course of special study, as the time and study learned for successful treatment can with most medical men be more profitably devoted to other matters.

They will fall into the hands of those who have given them especial attention. For this reason specialists will always be useful. Still, your committee cannot but conclude that this is accessible to any man in the profession. The principles can be grasped by any person of average intelligence and industry. What is to be thought of our present system of medical education? No more is required than was thought necessary thirty years ago: metropolitan schools, claiming to be the best in the land, conferring a degree on a candidate who has never made a chemical analysis, never looked through a microscope, has had no real experience in any part of the profession. The very foundation of scientific surgery of to-day lies in chemistry and physiology; and is it not notorious that chemistry is learned by the student as he sleeps through lectures; his knowledge of physiology is gleaned from some lectures, and of morbid anatomy is limited to a few specimens on a dirty tray passed around the class.

The student who wishes to learn must pay large extra fees, but to the most of them the large clinical advantages of Philadelphia and New York are not of much benefit, their means not allowing them to deviate from the regular catalogue. Packed in amphitheatres, they are taught surgical diagnosis on patients whom they are not permitted to touch, and can barely see from far off. The clinical patient is brought before them once or twice—cured, if he dies. The daily care of wounds is never witnessed except by the chosen few who are able to pay extra fees for extra advantages. We hazard nothing in saying that the mass of graduates from our largest schools get their diplomas without even having had a clinical drill of any value in any department of surgery. It is assumed, of course, that the moment the degree is conferred, the candidate by some mysterious process becomes at once proficient, though a few hours previous his knowledge may have been of the vaguest kind.

THE STATE BOARD OF HEALTH.

The Secretary, Dr. Ranney, read a paper by Dr. Hitchcock, of Kalamazoo, being a report of the State Board of Health to the State Medical Society. The

Board urged upon the various health officers of State the necessity of complying more closely with the law in regard to furnishing statistics of diseases dangerous to public health. The following resolutions were presented from the Board for the consideration of the Association:

Resolved, That in the opinion of the members of this society, the laws of the State requiring physicians to report to the local board of health, or to the health officers of their locality, all cases of sickness and death, of diseases contagious or dangerous to the public health, are wise and proper and ought to be complied with.

Resolved, That the law requiring health officers and clerks of local boards of health to make yearly reports to the State Board of Health, on blanks furnished them by the Board, is just and reasonable, and necessary to the most efficient work of the State board; and that no physician should accept the office of health officer who does not intend to comply with the law.

A motion to adopt the first resolution brought on quite a spirited debate, the opposition being led by Dr. Brodie, of Detroit, who claimed that the State had no right to either ask or compel the physicians of the State to perform any such services without remuneration. Drs Jerome, of East Saginaw, and Hitchcock, of Kalamazoo, urged the adoption of the resolution on the ground that all physicians should be willing to perform the work for the benefit of humanity. The resolution was finally adopted, and the report ordered published.

A paper by Dr. C. C. Yemans, on Herpes, followed.

Herpes, he said, is supposed to be due to reflex nervous irritation. It is, strictly speaking, limited to face, including eyes.

Local treatment.—Keep parts clean and dry. Ointment usually irritates. Covering with cosmeline so as to exclude all air, sometimes relieves, as also calomel, corn-starch, or roasted flour. He had success in herpes of mucous surfaces, with equal parts of iodoform and tannin.

The following resolutions were referred to the judicial council, by request of Dr. Chase, of Otsego, who presented them:

Resolved, That the Committee on Judiciary try to frame for the consideration of this Society, some rule of procedure or by-law that will guard this Society against the admission to our membership of men who have never graduated at a medical school or attended a medical school, until they shall have undergone an examination as to professional acquirements by the Board of Censors of this Society, and received a favorable recommendation by the board that they may be admitted to membership.

The following preamble and resolution was adopted:

Whereas, The State Medical Society of Michigan views with gratification the evidences that its labors for a more elevated standard of medical education have not been without reward, in the fact that all the medical schools of this State have made a preliminary examination and a three-term graded course a requisite for graduation, therefore

Resolved, That we, the members of the State Medical Society, pledge ourselves individually and collectively to support only such schools as require for admission a thorough preliminary examination, and for graduation at least a three-term graded course of lectures in three years of study; and that we will use our influence to prevent students from attending any college with an inferior standard of preparation and graduation.

The President, Dr. Johnson, appointed Dr. Brodie, of Detroit; Dr. Drake, of Hastings; Dr. McGraw, of Detroit; Dr. Topping, of De Witt, and Dr. McLean, of Ann Arbor, as a committee to nominate suitable persons for officers of the Association for the ensuing year.

The session then adjourned until afternoon.

Afternoon Session.

After roll-call, Dr. Fuller, of Grand Rapids, on invitation, presented a paper describing two very severe cases of crushing of the feet, and the treatment used to save the members from amputation. He advocated the free use of stimulants in such cases; this and free drainage of all such wounds, he thought was the best manner of treating such injuries. Whisky in small doses was a mere stimulant, but in large doses it reduced the pulse.

The day had gone by for reducing the pulse by bleeding by the quart as the old school of doctors used to do.

The report of Drs. Brodie and Hitchcock, the committee appointed by the Regents of the University to assist in the examination of the graduates of the Medical Department of the University, was read by the former. The report spoke in commendation of the ability of the candidates for medical degrees, and expressed the wish that all students could have a more thorough common education, and that all applicants for entrance to the medical department ought to be required to take at least a course in Latin and Greek, as was required to enter the freshman class in the literary department.

On motion, the report was ordered to be printed in the Transactions of the Society.

The Committee on Nominations presented the following as persons suitable to fill the various offices of the association for the ensuing year:

First Vice-President, Dr. E. P. Christian, of Wyandotte; Second Vice-President, J. W. Hagdorn, of Lansing; Third Vice-President, C. J. Landry, of Detroit; Fourth Vice-President, J. H. Bennett, of Coldwater; Recording Secretary, G. E. Ranney, of Lansing; Treasurer, G. M. Topping, of Detroit.

The report of the committee was accepted, and being adopted, the various candidates were declared duly elected.

The next business was the balloting for President, which resulted as follows: Whole number of votes cast, 76; Dr. Thomas, 45; Dr. Whalen, 28; scattering, 3.

Dr. Thomas, of Bay City, having a majority of the votes cast, was declared President of the Association for the ensuing year.

Drs. Foster Pratt, H. B. Shank, and E. S. Snow, members of the Judical Council whose terms of office expired this session, were re-elected.

A vote of thanks was tendered Dr. and Mrs. Johnson and Mr. and Mrs. Gilbert for their elegant entertainments, and to the physicians and citizens of Grand Rapids, who had spared no pains to make the assembling there useful and in every way pleasant.

A paper by E. B. Ward, M.D., of Lansingbury, on "Medical Superstitions," was read by title and referred to the publication committee.

On motion of Dr. Parmenter, the Society then adjourned, to meet in Bay City on the second Wednesday of June, 1881.

New Instruments.

A NEW ATTACHMENT TO THE HIP SPLINT.

By A. B. JUDSON, M.D.,

NEW YORK.

I have found the device shown in the accompanying cut useful as an attachment to the long hip splint. It consists of a curved band of steel which

projects stiffly from the upright in such a manner that one arm presses against the anterior surface and the other against the posterior surface of the lower part of the thigh. It takes the place of the adjustable piece which carries the retentive band at the level of the knee. Its object is to secure additional fixation of the hip-joint by holding the femur more steadily in a line parallel with the axis of the upright piece of the splint. It is applied, after the rest of the apparatus is adjusted, by placing it on the lower part of the thigh, and then pushing the tenon into the mortise (both shown in the cut). Its position may be modified by changing the length and direction of the short, straight piece which terminates in the tenon. It is kept in place by a cord or piece of webbing, fastened above to the upper part of the upright, or to the pelvic band, which, by the way, should be joined to the upright, in such a manner as to be adjustable, but, when properly adjusted, unmovable, except by the surgeon. A piece of webbing may be buckled around the thigh and the splint to assist in fixing the joint laterally.

I have used this attachment in two severe cases of advanced hip-joint disease, long enough to be satisfied that it secures better fixation, and that it is worn with comfort and a measure of relief. As fixation is undoubtedly one of the principal functions of the long hip splint, this little apparatus promises to be of value.

129 E. SEVENTEENTH STREET.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department United States Army, from June 13, 1880, to June 19, 1880.

SMITH, A. K., Major and Surgeon. Having reported in compliance with S. O. 74, C. S., A. G. O., is assigned to duty as Medical Director of the Department, relieving Surgeon J. C. McKee. G. O., No. 9, Dept. of Arizona, June 1, 1880.

GODDARD, C. E., Major and Surgeon. Granted leave of absence for four months. S. O. 128, A. G. O., June 11, 1880.

PAULDING, H. O., Capt. and Asst. Surgeon. Ordered before the Army Med. Board, in session in New York City, for examination for promotion, and on its completion to return to proper station. S. O. 132, A. G. O., June 16, 1880.

ADAIR, G. W., Capt. and Asst. Surgeon. Ordered before the Army Med. Board, in session in New York City, for examination for promotion, and on its completion to return to proper station. S. O. 132, A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 14, 1880.

Week Ending	Typhus Fever	Typhoid Fever	Scarlet Fever	Cerebro-spinal Meningitis	Measles	Diphtheria	Small-pox	Yellow Fever
June 12, 1880.	2	5	34	4	40	25	0	0
June 19, 1880	0	6	58	2	33	27	0	0

THE HOSPITALS OF PARIS AND NEW YORK. — The city of Paris has nineteen hospitals, public and private, including its municipal Maison de Santé. Fifteen of these are general in their character; that is, they have beds for medical, surgical, and lying-in cases. The remaining four are devoted to children's diseases, scrofulous diseases, accouchements, etc. The hospitals are nearly all very large, the total capacity of the whole nineteen being 9,673 beds. Of these, St. Louis is the largest, and has 843 beds. The famous Hôtel-Dieu has 563 beds. The average number is 509.

A comparison of these statistics with those of New York hospitals brings out some interesting contrasts. There are, altogether, in this city, about thirty-three hospitals, containing accommodations for between 6,000 and 7,000 persons. Of these hospitals, sixteen are special and seventeen general in their character. The special hospitals are, naturally, quite small, their average capacity being only a little over 100 beds. The general hospitals have an average capacity of about 300 beds. There are two hospitals, Charity and the Emigrant, with 1,000 beds. Bellevue has nearly 700.

It will be seen that our hospital accommodations are nearly as great, in proportion to our population, as those of Paris. That city has two millions of inhabitants, while we have only eleven hundred thousand. Our hospitals are more numerous, smaller in size, and more divided up for the accommodation of special diseases. We are not inclined to find fault with this arrangement. It is possible to have large hospitals managed in the best manner, and such hospitals furnish better opportunities for clinical instruction. Nevertheless, it is a fact that our model hospitals are those of medium size, and it is, of course, easier to secure good management for this kind. There is an impression, on the other hand, that many of the Parisian hospitals are quite deficient in respect to diet, nursing, and practical medical skill. This is a charge that cannot be brought against New York. Her hospitals are sufficiently numerous, and are, almost without exception, well-officered and well-managed. We can only regret that the vast mass of

clinical material which they offer is utilized so slightly in comparison with that abroad.

The Concours held at Rush Medical College, May 27th, for the position of Clinical Adjunct to the Chair of Diseases of Children, resulted in the choice of Dr. J. Suydam Knox, of Chicago. Dr. Knox is a gentleman well known in Chicago for his scientific attainments.

Chicago Medical College.—Dr. H. Gradle has been elected Professor of Physiology in this College, vice Dr. D. T. Nelson, resigned.

Drs. C. F. Fulsom, of Boston, and Mrs. Clara T. Leonard, of Springfield, have been appointed members of the Massachusetts Compound Board of Health, Lunacy, and Charity, in place of Drs. Wood and Allen, whose terms had expired.

The Death of Dr. Alfred S. Taylor, the well-known toxicologist, is announced.

A New Carbolized Dressing.—Dr. Rudolf Tauszky, of New York, writes to us concerning a new carbolized dressing which he has used with excellent results in the out-patient department of the Mt. Sinai Hospital. It was devised by a German physician, and the formula is as follows:

℞. Acid carbolic-cryst	25.00
Rosin	60.00
Stearin	00.15

Mix with 700 parts of pulverized chalk, or plaster-of-Paris; keep in a closed vessel, as otherwise part of the carbolic acid evaporates. The mixture contains about three per cent. of carbolic acid. If warmed it becomes liquid, and may be used in that state. It forms a most excellent dressing for torpid ulcers, carcinomatous ulcerations, moist gangrene, burns, etc.

The International Surgical Record is the name of a new weekly journal just started in this city, edited by Achillis Rose, M.D. It contemplates devoting its columns exclusively to surgery, and will publish complete translations from foreign medical literature.

Preventing Measles among Children.—In a recent elaborate report on measles, made by the Committee on Hygiene to the King's County Society, the opinion was expressed that it was not advisable to quarantine cases of measles, nor to keep children from school when there was measles in the family. It was believed very difficult to prevent the spread of the disease by mere measures, and the result was not worth the expense and inconvenience.

Four New Branches of the British Medical Association have been formed already this year, and attest the prosperity of the Association. In order to form a Branch it is necessary for at least twenty members to organize and apply to the Council for recognition. The new branches are, three of them in Australia and one in England.

The First Case of Yellow Fever in this port this season came in from Aspinwall June 16th, on a Pacific Mail steamship. On June 7th, the day after leaving Aspinwall, a steerage passenger was taken sick of yellow fever, and died June 12th, on board. The next day a cabin passenger was taken sick, and was still suffering when the vessel arrived on the 16th. He was removed to the quarantine hospital, where he died that night.

A Curious Epidemic of Cholera Morbus has recently occurred in Adams, a country town of 6,000 inhabitants in Massachusetts. In the course of a few days four or five hundred people were attacked. Women and children were most affected. The attacks resembled very much those of cholera morbus, but were often not as severe. There have been no fatal cases reported at date of writing. The cause of the epidemic has not yet been found; all speculations as to diet, water, air, etc., have furnished no satisfactory theory.

The Streets of New York.—The pathologist who wanders along Twenty-third Street on a pleasant day will not feel the need of a hospital in which to prosecute his studies. He will meet, within three blocks, a case of paralysis agitans, a double fracture of the femur, several amputations, a paraplegic, a blind man (amaurosis mendicantis), and a case of genu varum.

The Guy's Hospital Controversy is continued in the June number of *The Nineteenth Century*. Drs. Octavius Sturgis and Seymour Sharkey write in a peace-making spirit. Miss Lonsdale replies to the various articles that appeared the previous month. She apologizes for the warmth of her first article, explains a little, reasserts her position, and convicts Dr. Moxam of some misstatements.

Miss Alice Bennett, M.D., has been elected resident female physician to the Morristown Insane Asylum, at a salary of $1,000 a year.

Dr. Robert H. Chase, of Washington, D.C., has been elected resident physician to the same asylum, at a salary of $2,000 a year.

A New Hospital is to be built at Philadelphia, to be called St. Agnes' Hospital, and to be conducted on a plan similar to that of the St. Mary's Hospital. It will cost about $100,000, and will accommodate 300 patients.

Failure of the Law to Regulate the Practice of Medicine in Kansas.—According to the *Kansas Medical Index*, the law which has now been in operation for several years, to regulate the practice of medicine, has not been a success. The failure is due to the fact that the law is so obscure in its meaning that no one can be convicted under it. Furthermore, the medical profession of the State has not taken enough interest in the matter to carry any case up to a superior court, and thus have mooted points decided.

As it at present exists, medical students can get a license to practice from the examining board, and that without having to undergo a severe examination.

Meat-bread is the name of a preparation recently presented before the Paris Academy of Medicine by M. Scheurer-Kestner.

It was discovered by this gentleman that if meat be chopped up finely and mixed with dough in a proportion not exceeding one to two, the meat is digested during baking. Bread thus prepared does not taste very well, but it keeps a long time, is very digestible, and is excellent for soups. The bread is better if the meat (beef) is first cooked. There should be no fat and but little salt added. The preparation is to be tried in the army.

Of the Candidates for Admission to the College of Surgeons, England, over one-third were rejected at the examinations held during the week ending May 15th.

PROGRESSIVE SCLEROTICOTOMY has been treated with good results by partial division of the external rectus. This treatment is based on the theory attested by Emmert and Graefe, that posterior staphyloma is caused by pressure exercised on the optic nerve by the external rectus during converging movement.

JABORANDI IN THE TREATMENT OF SEROUS EFFUSIONS.—The London correspondent of *The Lancet and Practitioner* writes: "The use of jaborandi is on the increase, and the latest application of it is in the treatment of pleuritic effusions. Dr Hunt, of the Wolverhampton Infirmary, has been trying jaborandi in pleuritic effusion upon theoretical considerations. He says: 'Its mode of action is obvious. Diminishing the watery constituents of the blood vessels, it causes an absorption of fluids from the tissues and cavities of the body, and in fact it is more than probable that the vessels in such cases take up more than is secreted by the skin.' He then proceeds to demonstrate by the use of the hæmatocrator, that the effect of jaborandi upon the blood corpuscles is conformable with this hypothesis." Three cases are given in which the drug gave very satisfactory results.

We may append to this the remark that jaborandi has been frequently used for the purpose of removing serous effusions, in the Hospitals of New York, and, as a rule, with unfavorable results.

THE ADOPTION OF ANIMAL VACCINATION IN ENGLAND.—On June 11th, Dr. Cameron, M.P., introduced into the House of Commons a resolution to this effect: "That as cow-pock lymph, direct from the calf, commonly known as animal vaccine, is of at least equal value as a prophylactic against small-pox with the ordinary human lymph, and as its use affords an absolute guarantee against the propagation of those human diseases occasionally inoculated with human lymph, the House is of opinion that to meet the objections to vaccination founded on the possible communication of other disease through that operation, a supply of animal vaccine should be provided by the National Vaccine Establishment for the use of those who prefer it to the ordinary lymph."

This resolution aroused the anti-vaccination men to opposition, and a resolution was presented as an amendment, to the effect that, in the present unsettled state of medical opinion as to the safety and effectiveness of vaccination, it is inexpedient to enforce it under penalty. One of the strongest arguments which the anti-vaccinationists hold out to the thrifty British mind is that the national vaccine establishment costs the kingdom $3,000,000 a year. The claim that there is any division of medical opinion on the subject is, of course, absurd.

In this connection it may be stated that, after much parturient agony, an anti-vaccination society has been organized in this city. It starts with a little capital, since two or three cases of erysipelas have recently occurred as a result of vaccinations by officers of the city Board of Health. The illustrated weekly, *Puck*, which is sometimes very witty and sometimes very despicable, has published a striking cartoon, showing, by a parti-colored allegory, how the health-officers are filling the systems of our baby population with the virus of all kinds of disease.

MEDICAL STUDENTS IN SPAIN.—The Professor of Clinical Surgery in the Medical School at Seville says, in the *Edinburgh Medical Journal*: "The number of students who matriculated in the last session of 1878 to 1879 was above seven thousand, the number of licenses to practise was one thousand one hundred and more. This number exceeds the requirements of our population, and I don't know what so many medicos as there will be in Spain in the course of four or five years are going to do."

ISOLATION IN HOSPITALS.—The Lancet Medical Society has appointed a commission of five to study methods of obtaining complete isolation in hospitals, of patients suffering from infectious diseases.

THE ANNUAL MEETING OF THE AMERICAN NEUROLOGICAL ASSOCIATION, which held a three days' session in this city last week, was an interesting and successful affair. About the usual number of members was present. One of the most important of its actions was the passage of a resolution recalling the present evils connected with our insane asylums and commending the attempt to secure a reform.

THE INTERNATIONAL OTOLOGICAL CONGRESS.—When the first International Otological Congress met in New York, in 1876, it was decided that the second Congress should meet at the same place with the International Ophthalmological Congress. This place is Milan, and arrangements are going on accordingly. A local committee has been formed, consisting of Professor Rossi, of Rome, and Drs Sapolini and Restelligi, of Milan. Gentlemen who intend to attend the Congress are requested to communicate with Dr. Moos, at Heidelberg; and those who intend to read papers are also invited to inform him of the fact. Although French is to be the language of the Congress, papers can be read in any language. The date of meeting is September 6, 1880.

AN EPIDEMIC OF CHOREA has broken out among the pupils of the Ursuline Convent, Brown County, Ohio. The malady is so severe as to have caused death in one instance. No cause has been assigned.

Obituary.

CHARLES M. ALLIN, M.D., NEW YORK.

DR. CHARLES M. ALLIN, of this city, died at his residence, June 20th, aged 53 years. He was born in Providence, R. I., October 30, 1827. After a suitable preliminary course in the Institute at Sheffield, Ct., he entered Brown University, graduating from that institution in 1847. He afterwards attended the College of Physicians and Surgeons, New York, and received his degree of M.D. in 1851. He then served three years as interne in the Surgical Division of the New York Hospital, and in May, 1852, commenced practice in this city. In 1854 he removed to Flushing, L. I., where he enjoyed an extensive patronage for eleven years, at the end of which time he returned to New York, to form a partnership with Dr. Abram Dubois. From 1852 to 1855 he was physician to the Nursery and Child's Hospital, also physician to the Northern Dispensary; surgeon to the New York Eye and Ear Infirmary from 1855 to 1876; surgeon to the Presbyterian Hospital from 1874 to 1876; and to the New York Hospital since 1865. His contributions to medical literature were mostly confined to articles on surgical subjects in the various medical journals; notably among these contributions was one on Retro-pharyngeal Abscess, published 1851.

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